HiPath 1100 Manager

Documentation

SIEMENS

Global network of innovation

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The information provided in this document contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

Troubleshooting

If you encounter any problems, first contact first-level or technical System Support. If they cannot solve your problems contact Technical Assistance!

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1 General Information

HiPath 1100 Manager is a Windows application used for configuring and managing the HiPath 1100 for programming HiPath 1100 systems by means of a graphical interface that does not require any programming codes.

The **Look and Feel** of the user interface is similar to a standard Windows interface like that of Microsoft Outlook. This makes it is easy and intuitive to navigate the HiPath 1100Manager. The HiPath 1100 ManagerUser Interface can be displayed in different languages. The language preference can be changed after installation.

Considerations:

- The HiPath 1100 Version 6.0 application installation overwrites HiPath 1100 Version 5.2 installation. During installation no message is displayed to warn the user that HiPath 1100 Version 5.2 is being removed
- Both versions are supported; HiPath 1100 Version 6.0 applications can be used to manage a HiPath 1100 Version 5.2 PABX.
- HiPath 1100 Version 5.2 applications and HiPath 1100 Version 6.0 application cannot both be installed in the same computer. Otherwise, neither will work.

HiPath 1100 Manager can access a switch as follows:

- **Locally:** Connecting a USB interface, an optiPoint 500 UP0/E interface, or a V.24 interface
- **Remotely**: The system can be accessed through a LAN as long as there is a network PC connected to the HiPath 1100 via serial interface, USB interface or one of the ADSL expansion boards (ADSL, SLIMC, SADSLIM, LIMC or ADSLIM modules)

When using remote administration over an ISDN digital line, where no traffic is detected between the system and the remote programmer, the system can be configured to terminate the connection after a specified period of time (1 to 60 minutes) or to maintain the connection indefinitely. The default timeout setting is 30 minutes.

- **Offline Programming Mode**: Allows you to view, edit and store a HiPath 1100 database on a PC that is not currently connected to the PABX and later transfer it to it.

Functions

The following functions are provided by the Manager Offline:

1. New - Creates a brand new offline database (*.bup).

This requires the following information:

- Filename and target directory:
- Additional information: company name, author, product and comments

- PABX Type (HiPath 1100)
- Country

No modules are configured in the database generated. All extensions and lines are visible.

2. Opening this option allows opening a database file (*.bup) on the PC.lData can be defined by users “offline”. Changes made do not interfere with the PABX operation.Changes only take effect after they are uploaded onto the PABX.

   Manager can open only one file at a time.

3. Save - The configured database can be saved as a file.The extension *.bup is used for all files.
4. Save As - An active database can be saved as a file with a different name.
5. Close - Closes the active database.
6. Transfer Database - Send a database backup to the PABX.

The following information is required for transferring a database to a PC:

- password (same password as the system’s)
- The modules configured must be connected to the system.
- There is no conflict between Flexible Numbers. For example, no two group access codes or extensions can be assigned the same number.

If a problem occurs, a message is sent to the user.
Modules can be added or removed from the system. When a module is removed, the slot position for which it was configured is removed as well.

The **Default Password** for logging into the HiPath 1100 Manager for the first time is "**31994**."

After logging in for the first time, it is recommended that you change the **Default Password** (Access Code for the Manager) in the "Passwords" Tab.

After starting the HiPath 1100Manager and entering the default password, you will be able to access the system data (default settings) for the HiPath 1100 Manager.

Only the installed hardware and software options can be configured.

There is no "Print" option for printing the database for HiPath 1100 Manager on Offline Mode.

The HiPath 1100 software can also be updated using the HiPath 1100 Software Update and the database can be stored with the system’s configurations.

1.1 General Information on how to work with the HiPath 1100 Manager

After starting the HiPath 1100 Manager by selecting
`Start/Programs/Siemens HiPath 1100/Manager`
and entering the password, you can access the system data (default settings) for the HiPath 1100 Manager.

All the data that can be edited is accessed by selecting Folders/Subfolders/Folder List tabs, by clicking on the icons on the shortcut bar and toolbar or by selecting a menu bar function.

If you access a subfolder or a tab, the HiPath 1100Manager will automatically load the default settings (data) and display them on the tab or subfolder window screen.

The edited data can be exported to the HiPath 1100 using the "Update PABX" option on the toolbar or Popup Menu (right-click on the screen).

If you open a second subfolder or tab before completing the update, you will be prompted to confirm or cancel the changes. If no changes are made in the appropriate subfolder/tab, a prompt will not appear and the "Update" button will be disabled.

For subfolders or tabs with lists you can select multiple lines simultaneously.

You can also import or export records between applications within the different tabs or screens by using the Copy (Ctrl + C) and Paste (Ctrl+V) commands.

1.2 Starting Up

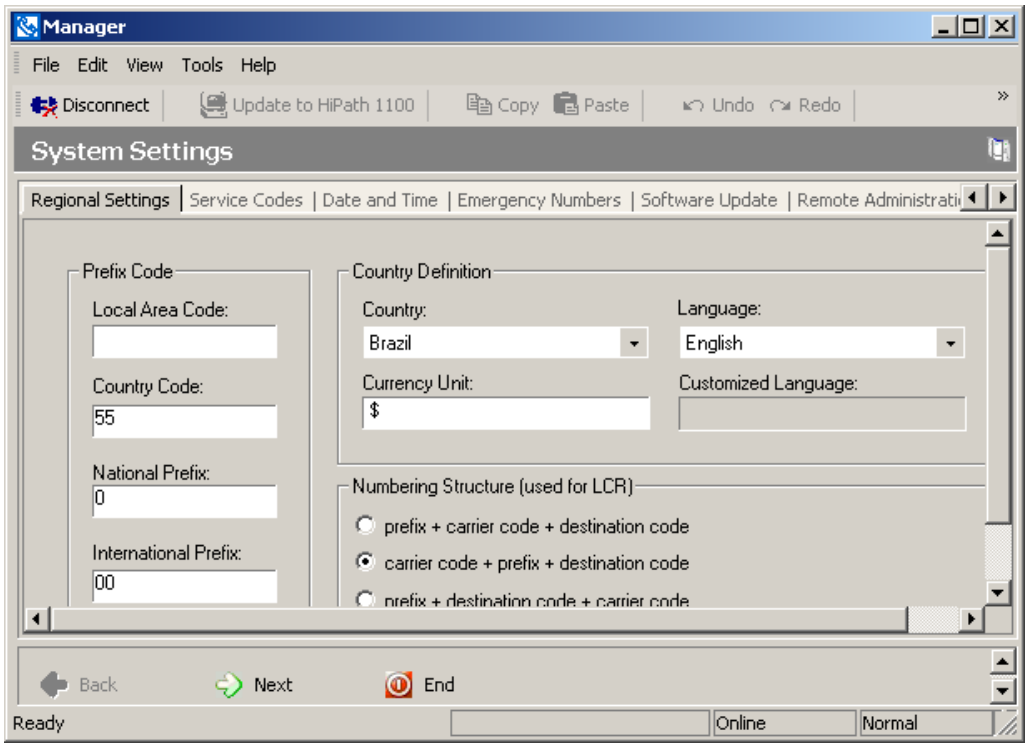
To start up the HiPath 1100 Manager select:

`Start/Programs/Siemens/HiPath 1100/ Services/Manager`

When logging into the HiPath 1100 Manager for the first time, use the **default password** "**31994**."

The **default password** (programming password) should be changed after you log into the
"Passwords" Tab for the first time.

When you first start the HiPath 1100 Manager, the Installation Wizard appears. This Wizard will guide you through the process of configuring basic system settings.



Use the **Next** and **Back** buttons to navigate the input screens. Each time that you make a change and click on the **Next** button, a message will appear asking if you would like to update your changes. You can make changes to the settings in the following screens:

- Regional Settings: Country, Prefix and Numbering Plan.
- Settings: For entering your digital line Multiple Subscriber Number (MSN) and configuring activation time and call signaling mode for each MSN.
- Day Service: For assigning MSNs to extensions for Day Service mode.
- Night Service: For assigning MSN to extensions for Night Service mode.
- System Speed Dialing: Fro creating a System Speed Dialing directory.
- Extensions: For assigning names to extensions.
- Call Charges: For assigning call charge limits.
- Click **End** to see the default view of HiPath 1100 Manager. This view now appears every time you open Manager.

Further information for changing the default configuration of your HiPath 1100 system appears in the following sections.

1.3 Functions and Features

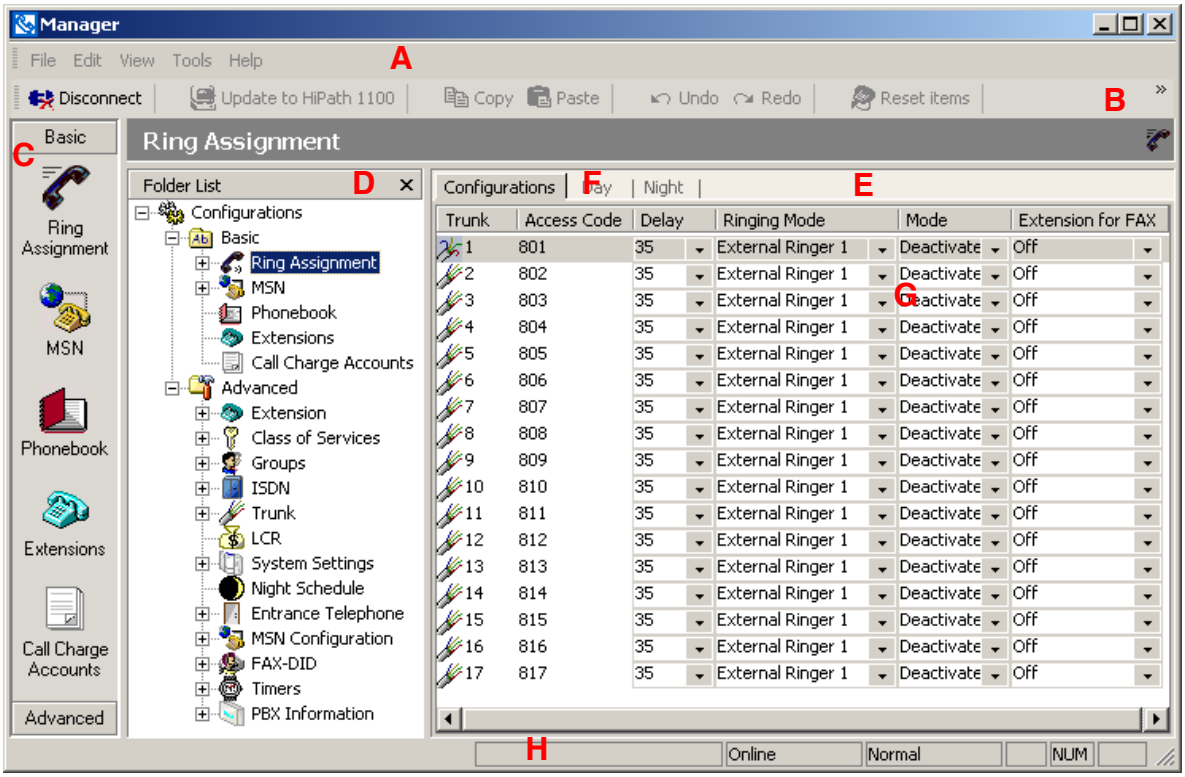
	Basic configuration
Line Attendants	Configuration for the first and second external line attendants and time of day (day or night).
MSN	Assigning Multi Subscriber Numbers (MSN) to extensions (received) and the time of day (day or night)
System Speed Dialing	Creates a system speed dialing phonebook.
Extensions	Assignment of names to extensions
Call Charges	Configuration of certain features that enable cost assessment for external calls by extensions.
Call Timeout	This setting specifies a maximum time for the duration of an outgoing external call for each extension.

	Advanced configuration
Extensions	Extension settings
PABX Trace	Monitors events that have occurred in the PABX during a particular period of time.
Service	This shows general information on the services available.
Entry Voice Mail - EVM	Voice Mail system settings
SNMP	Allows you to monitor the switch and manage the PABX.
Account code	External calls can be assigned account codes which provide more control over telephony costs. This information may be presented on the billing ticket.
Class of Service (COS)	Allocating Class of service
Groups	Creating an extension group (Pickup Group, Call Group, Hunt Group, MWIe Group, UCD Group, Associated Group, MOH).
ISDN	ISDN line configuration
External Lines	Numbering and group configuration and distribution for external lines
LCR	LCR (Least Cost Routing) settings for carriers that offer lower rates for calls made at certain days/times.

	Advanced configuration
ACS	ACS (Alternative Carrier Selection) settings for defining conversion rules for phone numbers dialed by the user. For example, these settings specify a carrier for all external calls, regardless of the carrier number dialed.
System Settings	System settings (from regional settings to passwords)
Calendar	Weekly settings for night service
Internal entrance telephone	Entrance telephone settings
Sensor and Relay	Settings for controlling alarm functions and Music on hold
MSN	MSN Classes of service (Day/Night - received/dialed)
Fax/DID	Configuring a Fax/DID facility
Timers	General setting for Flash detection, Flash on extension and Flash on external line.
PABX Information	Physical specification for the PABX.

2 User Interface

The figure below shows the HiPath 1100 Manager's main window.



Structure of the Main Window

A- Menu Bar

B- Toolbar

C- Shortcut Bar – For selecting commands directly from the Basic and Advanced folders

D- Folder List – A group of subfolders sorted by complexity and purpose

E- Folders/Subfolders – Window area for data input (input mask).

F-Tab – For organizing the configuration settings required for related topics in a subfolder/tab

G- Configuration setting
A programmable attribute of the HiPath 1100
List box – a list (e.g., Extensions/Lines/Speed Dialing Entry, etc.) with many settings for a specific configuration.

H- Status Bar

2.1 Menu Bar

"File" Menu

Position	Description	Shortcut
Connect	This connects the HiPath 1100 Manager to the PABX.	
Disconnect	Disconnects HiPath 1100 Manager from the PABX.	
New	Opens a popup window for configuring a new HiPath 1100 Manager file.	Ctrl+N
Open	Opens an existing HiPath 1100 Manager *.bup file.	Ctrl+O
Close	Closes an active HiPath 1100 Manager file.	
Profile Manager	Configures the parameters of a project. (see **Profile Manager**)	
Save Profile	Saves the Profile Manager in a *.bup file.	
Save Profile As...	Allows you to save the Profile Manager as a *.bup file with a different name and/or in a different location.	
Save	This saves the PABX database to a *.bup file.	Ctrl+S
Save As...	Allows you to save the PABX database as a *.bup file with a different name and/or in a different location.	
Switch database	Switches current database from Offline Mode to Online Mode.	
Save Backup Copy	This selects the PABX database and saves it as a file. The saved database may contain general system settings (e.g., Speed Dialing, LCR. etc.) and/or service/feature configurations for extensions (e.g.: Programming keys). Important information about the database can be entered and saved by using the *Dialog Box*. This is useful and easy to locate for future reference. For example, company name, author, product and comments.	
Restore backup copy	This opens a backup copy that was previously saved and sends it to the PABX. To locate a specific backup file, use the information entered in the *Dialog Box* at the time the backup copy was made. The appropriate information will be displayed as "Information:" in the *Dialog Box*. If the database has been saved previously in an earlier version (HiPath 1100 V5.1 or HiPath 1100 V5.2) and you want to update the database to HiPath 1100 V6.0, all you need to do is restore the *.bup file and the system will execute an automatic update. Once the restore process is completed, a popup message appears informing the user of the changes resulting from the restore process.	

Database converter	Allows you to convert the database from HiPath 1100 version V6.0 to a later version. When you select this option, a *Dialog box* will appear for you to select the required version of the database.	
Save PABX information.	Save general PABX information.	
Print	This prints the PABX database. When this option is selected, a Word document is opened displaying all PABX settings. If the system does not have Word, an HTML document is opened.	Ctrl+P
PABX Information	This displays information about the PABX (e.g., model, version, country, existing extensions, assembly with modules, etc.)	Ctrl+I
Reset Default Configuration	This restores the PABX to the factory default settings (a *Dialog Box* with a message is displayed before the action is completed). When this occurs, the current folder is closed and **all changes are lost**.	
Exit	This closes the application.	

Edit Menu

Slot	Description	Shortcut
Undo	This undoes the last operation executed from the Edit menu during a subfolder configuration (before selecting the Update button). When this option is greyed out, it means it is disabled and	Ctrl+Z
Redo	This redoes the last operation that was canceled using the Undo button. When this option is greyed out, it means it is disabled.	Ctrl+Y
Copy	This copies an item from an input field.	Ctrl+C
Paste	This pastes a copied setting to the selected area.	Ctrl+V
Delete	This deletes the selected item.	Del
Select All	This selects all items.	Ctrl+A
Restart Items	This resets the factory default for the selected item.	F3
Update HiPath 1100	Sends modified data to the PABX through the HiPath 1100 Manager/ Updates the current file's database. For Online Mode only.	F5
Apply	Applies the changes to the current HiPath 1100 Manager file. For Offline Mode only.	

"View" Menu

Slot	Description
Toolbar	Shows/hides the toolbar.
Status Bar	Shows/hides status bar.
Folder List	Shows/hides folder list.
Shortcut Bar	Shows/hides the status bar.
Numbering Plan Validation	Shows the numbering plan validation.

Tools Menu

Item	Description
Configuration	This starts the Microsoft Wizard and displays the extensions not connected to the system.
HiPath 1100 Configuration Wizard	This starts the PABX Configuration Wizard.
HiPath 1100 Software Update	This starts the HiPath 1100 Software Update for updating the PABX software (Software Update).
CommServer Configuration	Opens a *Dialog box* for setting the port and IP address of the **CommServer**. • The TCP/IP **Communication port** where the HiPath 1100 Manager will connect to the CommServer for perform operations in the PABX. The valid address is **3100**. • The **IP address** of the place where the CommServer application is installed.
Server Mode	This opens a *Dialogue Box* showing that the HiPath 1100 Manager is waiting for a remote call from a HiPath 1100 system. which then allows a “Technician” to configure the system remotely.
Language	This specifies a language of choice for the HiPath 1100 Manager.

"Help" Menu

Item	Description	Shortcut
Help Topics	This opens the program's Help feature.	F1
About Manager ...	This displays information about the HiPath 1100 Manager application.	

2.1.1 Profile Manager

The Profile Manager allows the user to create, open, edit or exclude profiles for the connection or opening of a database. Profiles are structures that help the user to organize different scenarios such as different clients or connections.

To perform these actions, when you the select the **Profile Manager** option, a Dialog box opens with the following options:

"Create Profile" button

The **Create Profile** button creates a new profile. When you select that button, a new Dialog box opens with the following fields:

"Name" field

Insert the name of the profile into the **Name** field. The maximum number of characters is 255 and the name may not be left blank.

"Connection type" field

The **Connection type** field defines how the HiPath Manager will access the PABX.

- USB connection;
- optiPoint USB connection;
- Connection using an external analog modem;
- S_0 ISDN connection;
- ADSL Connection;
- Serial Connection;
- CommServer in another machine.

If you select the connection type as "CommServer in another machine", the configuration of the address and port of the CommServer will be enabled and the CommServer local configuration will not be changed.

“Properties” button

The **Properties** button provides information on the **"Connection type" field** and allows changes to be made to it.

“Connection status” field

The **Connection status** field selects the connection mode for the Manager*:* **Offline** or **On-line**. If you choose **online**, you may not configure the database file.

“Database archive” field

The **Database archive** field inserts the route for the current database*.*

“Browse” button

The **Browse** button allows the to search the database files available in the system.

“OK” and “Cancel” buttons

The **OK** and **Cancel** buttons save or cancel the data configured in the previous fields*.*

“Edit Profile” button

The **Edit Profile** button allows the to edit an existing profile. The window will open where a profile is created (see **“Create Profile” button**).

“Delete Profile” button

The **Delete Profile** button deletes an existing profile*.*

“Connect/Open” button

The **Connect/Open** button loads all the selected profile properties*.*

If a connection is established at that time and the connection parameters are not the same, the parameters are only compared. In this case, the connection is not changed and the user is informed using a warning box.

“Close” button

The **Close** button closes the Dialog box*.*

2.2 Toolbar

The *Toolbar* contains shortcut icons for accessing frequently used menu items such as:

- Connect (**"File" Menu**)
  If no PABX connection is active, only the Connect button is enabled.

- Update PABX or Apply (**Edit Menu**)
- Undo (**Edit Menu**)
- Copy (**Edit Menu**)
- Paste (**Edit Menu**)
- Redo (**Edit Menu**)
- Restart (**Edit Menu**)
- Numbering Plan Validation (**"View" Menu**)
- HiPath 1100 Configuration Wizard (from **Tools Menu**)
- Help Topics (**"Help" Menu**)

The manner in which toolbars are displayed can be changed. To do this right-click on *Toolbar* or *Menu bar*, and select a viewing mode.

2.3 Shortcut Bar

Two *Shortcut Bars* provide quick access to frequently used functions:

- Basic – For items located in the **Basic** folder, described below.
- Advanced – For items located in the **Advanced** folder, described below.

You may view icons as thumbnails or maximized. To change the view right-click on *Shortcut Bar* and select a view mode.

2.4 Folder List

Configuration items are organized in two folders with the following structure:

Basic

- Line Attendants (for configuring external line attendants)
- MSN (for MSN distribution and assignment)
- System Speed Dialing (for creating a system speed-dial directory)
- Extensions (for assigning names to extensions)
- Call Charges (for determining costs for extensions)

Advanced

- Extensions (for configuring extensions)

- Entry Voice Mail - EVM (Voice Mail)
- Class of Service (COS) (for assigning Class of Service)
- Groups (for creating a group)
- ISDN (for configuring a S_0 interface, external ISDN or internal S_0 bus)
- External Lines (for configuring an external line)
- LCR (for creating a schedule for LCR, i.e. Least Cost Routing)
- ACS (for creating a schedule for ACS - Alternative Carrier Selection)
- System Settings (for configuring the system's general settings)
- Calendar (for setting Day or Night Service)
- Internal entrance telephone (for configuring up to 20 entrance telephone slots)
- Sensor and Relay (for configuring an optional MOH module for the HiPath 1120)
- MSN (for assigning MSN to incoming/outgoing Day and Night service)
- Fax/DID (for configuring a Fax/DID feature)
- Timers (for setting Flash detection time)
- PABX Information (for general information about a connected PABX)

2.5 Status Bar

The following connection status are displayed in the *Status Bar*:

- Progress Bar (appearing on the left side, it indicates the selected command/feature progress).
- Online/Offline (this indicates if a system is online or offline)
- Mode: Normal/Server (Normal - PABX is connected to the application Server means that there is a remote system connected to the application.)
- CAP/NUM/SCRL (refer to the Caps Lock, Num Lock and Scroll Lock keys.)

The manner in which toolbars are displayed can be changed. To do this right-click on *Toolbar* or *Menu bar*, and select a viewing mode.

2.6 Popup Menu

Right-clicking on a *Configuration Item* opens a menu containing the same options as those in the Edit Menu.

Slot	Description	Shortcut
Undo	This undoes the last operation executed from the Edit menu during a subfolder configuration (before selecting the Update button). When this option is greyed out, it means it is disabled.	Ctrl+Z
Redo	This redoes the last operation that was canceled using the Undo button. When this option is greyed out, it means it is disabled.	Ctrl+Y
Copy	This copies an item from an input field.	Ctrl+C
Paste	This pastes a copied setting to the selected area.	Ctrl+V
Delete	This deletes the selected item.	Del
Select All	This selects all items.	Ctrl+A
Restart Items	This resets the factory default for the selected item.	F3
Update HiPath 1100	Sends modified data to the PABX through the HiPath 1100 Manager/Updates the current file's database. For Online Mode only.	F5
Apply	Applies the changes to the current HiPath 1100 Manager file. For Offline Mode only.	F5

The Restart Items option is available only when you right-click inside the *Slot Configuration* area. This will reset factory defaults for the selected item.

In the different tabs/masks, you can import/export data to and from other applications by using the Copy and Paste commands.

3 Basic Configuration

The following functions are configured in the **Basic** folder:

- **Line Attendants**
- **MSN**
- **System Speed Dialing**
- **Extensions**
- **Call Charges**
- **Call Timeout**

3.1 Line Attendants

Extensions for answering incoming calls can be configured In the **Line Attendant** sub-folder. Configure the settings using the following three tabs:

The **Line Attendants** subfolder contains the following tabs:

- "Settings" Tab
- "Day Service" Tab
- "Night Service" Tab

If an EVM Mailbox is configured as a Line Attendant, all other external line attendants will be linked to the same mailbox, regardless of the mailbox being configured for Day or Night service.

3.1.1 "Settings" Tab

Configure external lines by setting the parameter fields within this *tab*, in the following columns.

Note:

All external lines that are **connected** are displayed in this tab.

Enter:

The configuration options for each external line in the following columns:

"External Line" Column

The **External Line** column shows the external lines that can be configured.

"Access Code" Column

Use the **Access Code** column to change the access code (up to 5 digits) for an external line.

"Waiting Timeout" Column

Use the **Waiting Timeout** column to select a period of time (in seconds) for an incoming call to keep ringing at the First Attendant of an external line. If the call is not answered within the specified amount of time, it will be directed to the Second Attendant.

"Ring" Column

Use the **Ring** column to select one of four different types of rings for an incoming call to signal an extension.

"Answering Mode" Column

Use the **Answering Mode** column to configure one of the following answering features:

Disabled

Fax/DID features are disabled.

FAX

In this operating mode the module detects only fax signals. A greeting message is played for all incoming external calls. If the caller wants to send a fax, the transmission can be started at the end of the message. If no fax signal is detected within 10 seconds of the greeting message a second message is played and the call is transferred to an Attendant.

DID

In this operating mode the facility detects fax signals and extensions or digits entered. When an external call is answered, a greeting message is played to guide the caller. The following is an example of a recorded message: "You have reached Siemens. Dial the extension number you would like to reach: 22 for Sales Department or 23 for Technical Support."
If the DID does not detect a valid MF signal within 10 seconds of the greeting announcement, a second announcement is played and the call is transferred to an Attendant.

Fax/DID

In this operating mode the facility detects fax signals and extensions or digits entered. When an external call is answered a greeting message is played to guide the caller. The following is an example of a recorded message: "You have reached Siemens. To send a fax start transmission now. For Sales Department dial 22. For Technical Support dial 23." If no valid fax signal, digit or extension is detected within 10 seconds of the greeting message, a second message is played and the call is transferred to an Attendant.

Message

When an external call is answered, a greeting message is played and the call is transferred to an attendant.
The following is an example of a recorded message: "You have reached Siemens. Your call is being transferred."

Auto-Fax

When this mode is enabled, the system can detect a fax signal during the first ten seconds of a conversation then transfer the call to a specified extension such as a Fax/DID. When no signal is detected the conversation proceeds as usual.

"Fax Extension" Column

Use the **Fax Extension** column to specify which extensions are connected to a fax machine.

"Greeting Message" Column

Use the **Greeting Message** column to assign a greeting/message to a MSN. Additional settings can be specified using the "Message Settings " Tab in the EVM subfolder.

3.1.2 "Day Service" Tab

Use this *tab* to assign **Extensions,EVM Virtual Ports, Call Groups**, **Hunt Groups** and **UCD Groups** to external lines as First or Second Attendants for incoming calls for **Day Service**.

Note:

- Call Groups (CG) - 770 to 779
- Hunt Groups (HG) - 780 to 789
- UCD Subscriber Groups - 790 to 799

Enter:

Extensions, Virtual Ports and **Groups** to be assigned as First Attendants; **Extensions** and **Virtual Ports** to be assigned as Second Attendants for external lines in the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension**, **Virtual Port** or **Group**, and use the **">"** button to move to the "Selected*"* field. Use the**"< "** and **"<< "** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"External Line" Column

The **External Line** column shows the external lines that can be configured.

"First Attendant" Column

The **First Attendant** column contains the same information as the *First Attendant* field. It also displays Extensions, Virtual Ports and Groups available for answering incoming calls.

"Second Attendant" Column

The **Second Attendant column** contains the same information in the *Second Attendant* field. It also displays Extensions, Virtual Ports and Groups available for answering incoming calls when the First Attendant is unavailable or does not answer a call within the timeout specified in the **"Settings" Tab -** "Waiting Timeout" Column.

When an EVM virtual port is configured as a Second Attendant and the First Attendant has Call Forwarding - No Answer enabled:

- **Call Forwarding Timeout for No Answer < Timeout**, calls are routed to the Call Forwarding destination when there is no answer. If a call is answered before the timeout expires, the call is completed and the timeout is cancelled. If the timeout expires before the call is answered at the destination, the call is routed to an EVM and a greeting is played.
- **Call Forwarding Timeout for No Answer >= Timeout**: the call is forwarded to an EVM and a greeting is played.

To add a Second Attendant you must first configure the First Attendant.
The extension configured as a First Attendant cannot be configured as a Second Attendant.
No more than 10 extensions can be configured as Attendants, and no more than one Group can be assigned to an external line.
A Group cannot be configured as a Second Attendant.

3.1.3 "Night Service" Tab

Use this *tab* to assign **Extensions,EVM Virtual Ports, Call Groups**, **Hunt Groups** and **UCD Groups** to external lines as First or Second Attendants for incoming calls during **Night** service.

Note:

- Call Groups (CG) - 770 to 779
- Hunt Groups (HG) - 780 to 789
- UCD Subscriber Groups - 790 to 799

Enter:

Extensions, Virtual Ports and **Groups** to be assigned as First Attendants; **Extensions** and **Virtual Ports** to be assigned as Second Attendants for external lines in the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension**, a *Virtual Port* or a **Group**, and use the **">"** button to move to the "*Selected"* field. Use the**"<** " and **"<<** " buttons to reset selected items in the *"Available" field.* You can also make the selection by double-clicking the selected item with the left mouse button.

"External Line" Column

The **External Line** column shows the external lines that can be configured.

"First Attendant" Column

The **First Attendant** column contains the same information as the *First Attendant* field. It also displays Extensions, Virtual Ports and Groups available for answering incoming calls.

"Second Attendant" Column

The **Second Attendant** column contains the same information as the *Second Attendant* field. It also displays Extensions, Virtual Ports and Groups available for answering incoming calls when the First Attendant is unavailable or does not answer a call within the timeout specified in the **"Settings" Tab -** "Waiting Timeout" Column.

When an EVM virtual port is configured as a Second Attendant and the First Attendant has Call Forwarding - No Answer enabled:

- **Call Forwarding Timeout for No Answer < Timeout**, calls are routed to the Call Forwarding destination when there is no answer. If a call is answered before the timeout expires, the call is completed and the timeout is cancelled. If the timeout expires before the call is answered at the destination, the call is routed to an EVM and a greeting is played.
- **Call Forwarding Timeout for No Answer >= Timeout**: the call is forwarded to an EVM and a greeting is played.

To add a Second Attendant you must first configure the First Attendant.
The extension configured as a First Attendant cannot be configured as a Second Attendant.
No more than 10 extensions can be configured as Attendants, and no more than one Group can be assigned to an external line.
A Group cannot be configured as a Second Attendant.

3.2 MSN

The HiPath 1100 can be equipped with an optional module for basic access (S_0), E1 CAS access or S2 access. This allows leasing digital lines from a local telephone company or turning a conventional telephone line into a digital one for faster and more efficient communications (consult your local carrier).

If an MSN DID does not attend an external call, it will be stored in the unattended calls list, specifying the Name/Number of the call and/or Name/Number called (MSN). The fields that should appear in the display should be configured in System Settings -> "General" Tab.

The HiPath 1100 system allows operation with two types of basic access.

Point-to-Multipoint Basic Access

Multiple Subscriber Numbers (MSN) can be assigned to **Point-to-Multipoint Basic Access**. With these numbers different systems can be connected to a digital line (e.g., PABX, telephones, PCs, etc.). When a caller dials a MSN, the call rings at the system that is connected to a digital line that recognizes the number dialed.

Point-to-Point Basic Access

System Access (point-to-point access) consists of a basic access for operating one system only with the option of direct dialing to specified extensions (DID).

Check with your local carrier for information on what type of **Access** is available for your PABX.
The type of access is configured in the **Advanced** → **ISDN** folder.

Use the **MSN** (Multi Subscriber Number) subfolder to assign/change MSN numbers on the digital line to extensions, extension groups and mailboxes (via EVM virtual ports) for answering incoming calls. Configure the settings using the following three tabs:

The **MSN** subfolder contains the following four tabs:

- Configuration tab
- "Day Service" Tab
- "Night Service" Tab

3.2.1 Configuration tab

Use this *tab* to register MSNs assigned to a digital line and configured according to the parameters shown in the following *columns*.

Note:

The slots that are available, as well as the MSN already configured**,** are displayed in this tab.

The MSN reserved for DISA access is not displayed in this table.

Enter:

MSN numbers and configurations for each MSN in the following *columns*:

"Slot" Column

The **Slot** column shows the 140 slots available for configuration in the HiPath 1100.

"MSN" Column

The **MSN** column shows MSNs available for configuration.

MSN numbers can be entered manually or automatically through the**MSN Wizard** button or the **Browse** *button.*

"Name" Column

On the *Name* **column**, enter the names assigned to MSN numbers.

"Waiting Timeout" Column

Use the **Waiting Timeout** column to select a period of time (in seconds) for an incoming call to keep ringing at the First Attendant of an external line. If the call is not answered within the specified amount of time, it will be directed to the Second Attendant.

"Ring" Column

Use the **Ring** column to select one of four different types of rings for an incoming call to signal an extension.

"Answering Mode" Column

Use the **Answering Mode** when the system features a DID/FAX facility configured and you want to use one of the following answering features:

Disabled

Fax/DID features are disabled.

FAX

In this operating mode the module detects only fax signals. A greeting message is played for all incoming external calls. If the caller wants to send a fax, the transmission can be started at the end of the message. If no fax signal is detected within 10 seconds of the greeting message a second message is played and the call is transferred to an Attendant.

DID

In this operating mode the facility detects extensions or digits entered and transfers the calls. When an external call is answered, a greeting message is played to guide the caller. The following is an example of a recorded message: "You have reached Siemens. Dial the extension number you would like to reach: 22 for Sales Department or 23 for Technical Support."
If the Fax/DID does not detect a valid MF signal within 10 seconds of the greeting message, a second message is played and the call is transferred to an Attendant.

Fax/DID

In this operating mode the facility detects fax signals and extensions or digits entered. When an external call is answered a greeting message is played to guide the caller. The following is an example of a recorded message: "You have reached Siemens. To send a fax start transmission now. For Sales Department dial 22. For Technical Support dial 23." If no valid fax signal, digit or extension is detected within 10 seconds of the greeting message, a second message is played and the call is transferred to an Attendant.

Message

When an external call is answered, a greeting message is played and the call is transferred to an attendant.
The following is an example of a recorded message: "You have reached Siemens. Your call is being transferred."

Auto-Fax

When this mode is enabled, the system can detect a fax signal during the first ten seconds of a conversation then transfer the call to a specified extension, such as a Fax/DID. When no signal is detected the conversation proceeds as usual.

"Fax Extension" Column

Use the **Fax Extension** column to specify which extensions are connected to a fax machine.

"Greeting Message" Column

Use the **Greeting Message** column to assign a greeting/message to a MSN. Additional settings can be specified using the "Message Settings " Tab, in the EVM subfolder.

"MSN Wizard" Button

Select this icon to open a Pop-up Window using the Setup Wizard to assign MSN numbers. This speeds up the MSN sequence entry process in the HiPath 1100 Manager.

"Browse" Button

When using digital lines with Call Forwarding capability on a public network (depending on the carrier) the **Browse** button allows you to query available MSNs and record them automatically on the directory.

MSN numbers are automatically entered only if remote operation is configured for POP (Point-to-Multipoint). If the operation mode is configured for PP (Point-to-Point), only the system number will be entered in the Advanced -> System Settings -> Regional Settings folder. MSN numbers will need to be configured in Basic -> MSN -> Settings folder.

3.2.2 "Day Service" Tab

Use this *tab* to assign **Extensions, Call Groups**, **Hunt Groups, voice mail UCD Groups** and **Mailboxes** to external lines as First or Second Attendants for incoming calls in **Day service**.

Note:

The system supports up to 140 MSNs. Each of these 140 numbers can be assigned to a list of up to 10 extensions, 1 group or 1 mailbox through an EVM Virtual Port. The system allows independent configuration for incoming day and night calls. An MSN can have a maximum of 20 digits.

- Call Groups (CG) - 770 to 779
- Hunt Groups (HG) - 780 to 789
- UCD Subscriber Groups - 790 to 799
- EVM Virtual Ports - 744 to 747

Enter:

In the *"Selected"* field the **MSNs** to be changed or assigned to **Extensions** and **Extension Groups** as First Attendants and Second Attendants for external lines. To make this selection place the cursor in the *"Available"* field, select the **Extension** or **Group**, and use the **">"** button to move to the *"Selected"* field. Use the**"<** " and **"<<** " buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

A Voice mail group may only be selected as a second attendant if only one extension is selected as first DID and the group is configured as EVM
(see System Settings -> "General" Tab, Voice mail field).
If the EVM group is changed and the old group is configured as the second attendant, that group should be removed manually from the second attendant list and the new group inserted in the list.

"MSN" Column

The **MSN** column shows MSNs available for configuration.

"First Attendant" Column

The **First Attendant** column contains the same information as the *First Attendant* field. It also displays Extensions, Groups and EVM Virtual Ports (mailboxes) available for answering incoming calls.

"Second Attendant" Column

The **Second Attendant column** contains the same information in the *Second Attendant* field. It also displays Extensions, Groups and EVM Virtual Ports (mailboxes) available for answering incoming calls when the First Attendant is unavailable or does not answer a call within the timeout specified in the **Configuration tab -** "Waiting Timeout" Column.

3.2.3 "Night Service" Tab

Use this *tab* to assign **Extensions, Call Groups**, **Hunt Groups, voice mail UCD Groups** and **Mailboxes** to MSN numbers as First or Second Attendants for incoming calls in **Night service**.

Note:

The system supports up to 140 MSNs. Each of these 140 numbers can be assigned to a list of up to 10 extensions, 1 group or 1 mailbox through an EVM Virtual Port. The system allows independent configuration for incoming day and night calls. An MSN can have a maximum of 20 digits.

- Call Groups (CG) - 770 to 779
- Hunt Groups (HG) - 780 to 789
- UCD Subscriber Groups - 790 to 799
- EVM Virtual Ports - 744 to 747

Enter:

MSNs to be assigned to **Extensions** and **Groups** as First Attendants and **Extensions** to be assigned as Second Attendants for external lines in the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension** or **Group**, and use the **">"** button to move to the *"Selected"* field. Use the**"<** " and **"<<** " buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

A Voice mail group may only be selected as a second attendant if only one extension is selected as first DID and the group is configured as EVM
(see System Settings -> "General" Tab, Voice mail field).
If the EVM group is changed and the old group is configured as the second attendant, that group should be removed manually from the second attendant list and the new group inserted in the list.

"MSN" Column

The **MSN** column shows MSNs available for configuration.

"First Attendant" Column

The **First Attendant** column contains the same information as the *First Attendant* field. It also displays Extensions, Groups and EVM Virtual Ports (mailboxes) available for answering incoming calls.

"Second Attendant" Column

The **Second Attendant column** contains the same information in the *Second Attendant* field. It also displays Extensions, Groups and EVM Virtual Ports (mailboxes) available for answering incoming calls when the First Attendant is unavailable or does not answer a call within the timeout specified in the **Configuration tab -** "Waiting Timeout" Column.

To configure MSN for "Day Incoming/Outgoing" and "Night Incoming/Outgoing" go to the **Advanced** → **MSN** folder.

- To add a Second Attendant you must first configure the First Attendant.
- The extension configured as a First Attendant cannot be configured as a Second Attendant.
- No more than 10 extensions can be configured as Attendants, and no more than one Group can be assigned to each external line or one EVM Virtual Port (mailbox).
- A Group cannot be configured as a Second Attendant.

3.3 System Speed Dialing

In the subfolder **System Speed Dialing** you can add or change information related to the System Speed Dialing. Configure the settings in these three columns:

Note:

A maximum of 250 speed dial entries, including name and number, can be entered.

Individual Speed Dialing using abbreviated numbers for each extension cannot be configured using the HiPath 1100 Manager.

You can import/export names and numbers between the **System Speed Dialing** and other applications using the Cut and Paste commands.

The last entry in the **System Speed Dialing** is reserved for the sensor and for the relay of the HiPath 1120 MOH Module.

Enter:

Enter **Names** and **Numbers** into the Phonebook by editing the appropriate field in each column. It is possible to enter an external number (that requires dialing an access code 0) or internal numbers. It is recommended that whatever procedure you chose for entering names in the phonebook (for example, last name, first name) should be applied consistently each time you make an entry. This will help when using the ***Lookup*** feature in the **System Speed Dial** subfolder as well as the **"Phonebook Search"** for extensions with system telephones.

"Abbreviated Number" Column

The **Abbreviated Number** column contains abbreviated numbers that can be used by the extensions for speed dialing.

"Name" Column

In the **Name** column enter names linked to phone numbers to facilitate a **'Phonebook Search"** by system telephones or a Browse option.

KS-type system telephones (E 822 ST and Profiset 3030) do not support characters of the type "**Ç**" and "**Ã**" .

"Number" Column

In the **Number** column you enter the numbers for the Phonebook. Each number entry may have up to 20 digits.

"Find" Field

The **Find** field lets you look for a specific word whenever needed.

"Find" Button

The **Find** buttons starts a search.

3.4 Extensions

The **Extensions** subfolder contains names assigned to extensions.

Note:

Up to 20 characters can be used per extension.

Enter:

A **Name** for each extension by editing the fields in the **Name** column.

"Extension" Column

The **Extension** column displays the numbers available for the extensions.

"Name" Column

In the **Name** column enter names linked to phone numbers to facilitate a **"Phonebook Search"** and shown on system telephone displays.

KS-type system telephones (E 822 ST and Profiset 3030) do not support characters such as “**Ç**” or “**Ã**” .

3.5 Call Charges

On HiPath 1100 systems the Billing facility (Call Cost Limit by Extension) is only available for digital trunks (ISDN and CAS). Please consult your local carrier to know if this service is provided.

In the **Call Charge** subfolder you can configure some features to estimate/limit external line costs for each extension for a set period of time.

Note:

When this *check box* has been selected and the extension reaches the specified cost limit, the extension cannot make any more external calls.

Enter:

The **Amount** that can be spent, then confirm this amount and set the date to reset the charges.

"Extension" column

The **Extension** column displays the numbers available for the extensions.

"Amount" Column

In the **Amount** column you can specify charge call limits for each extension (up to six digits).

"Current Cost" Column

The **Current Cost** column displays the currently accumulated call cost totals.

"With Limits" Column

If the **With limits** check box is not checked (default setting), it means that the extension may have unlimited call charges.

"Monthly Reset" Field

The **Monthly Reset** field (one or two digits) is a monthly date when the call charges restart. When the **Monthly Reset (monthly, 00:00)** checkbox is selected, you can specify a **Day** for the call charge limit.

Enter a value (one or two digits) between **1** and **28** to restart the **Day**. (Note: If you enter the value 31, the call charge limit will only be reset for months that have 31 days.)
The call charge limits are reset at midnight on the day entered.

3.6 Call Timeout

Use the **Call timeout** subfolder to set the timeout for making external calls for each extension. In other words, when the total time of the external calls made reaches the time limit set for calls underway, these calls will be interrupted and no further calls may be made until more time "credit" is awarded.

Note:

Calls may also be interrupted if the extension has been configured with these features:

- ”Timer for outgoing external call" - the limit also stops counting.
- ”Billing for an extension " - the call will only be started or can continue if the time and credit limit have not been reached.

For simultaneous calls, call times will be counted separately.

If the call finishes before 5 seconds have elapsed, the time will be counted as if it were completed.

Enter:

The time limit for making external calls for each extension.

"Extension" field

The **Extension** field displays the numbers of the available extensions.

“Total time” field

The **Total time** field sets the timeout for external calls. The time can be set from 0 to 90 hours in 5-second intervals.

“Elapsed time” field

The **Elapsed time** field shows the time spent by the user on external calls.

“Enable time” field

The **Enable time** field enables or disables the external call timeout for each extension.

The default setting for the timeout is disabled.

“Monthly reset” checkbox

The **Monthly reset** checkbox allows the user to define a day of the month on which the timeout for external calls on all extensions will begin.

Selecting the checkbox will enable the **Day** field *to* select the day for the monthly reset. The default setting for this field is disabled.

4 Advanced Configuration

In the **Advanced** (Advanced Configuration) folder you can configure the following functions:

- **Extensions**
- **PABX Trace**
- **Service**
- **Entry Voice Mail - EVM**
- **SNMP**
- **Account code**
- **Class of Service (COS)**
- **Groups**
- **ISDN**
- **External Lines**
- **LCR**
- **ACS**
- **System Settings**
- **Calendar**
- **Internal entrance telephone**
- **Sensor and Relay**
- **MSN**
- **Fax/DID**
- **Timers**
- **PABX Information**

4.1 Extensions

The **Extensions** subfolder contains the following four tabs:

- "General" Tab
- "Interface CD" Tab
- "Key Assignment" Tab
- "Flexible Number" Tab
- "ISDN Telephones" Tab
- "Call forward - no answer" tab

4.1.1 "General" Tab

Note:

All **connected** analog terminals as well as the **existing** system telephones are shown in this tab.

The **Columns** show the current extension configuration status for each item available in the fields immediately below.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The appropriate settings by extension into the corresponding fields.

"Extension" Field

In the **Extension** field you can select an extension to configure (this can also be done by selecting a sequence of extensions.)

"Name" Input Field

In the **Name** field, you can change the name assigned (up to 16 characters) to the **Extensions** subfolder under Basic Configuration. For system telephones, the name is used instead of a number or with a number.

"Dialing Mode" Field

The **Dialing Mode** field is available only for analog lines for which the dialing mode can be configured with one of the following options:

- **Automatic** (default)
- **Pulse** (Dial Pulse mode)

- **Tone** (Multifrequency tone dialing)

Note:

By default, the dialing mode for modern telephones is DTMF (Dual-Tone Multifrequency). For most telephones, however, it is possible to change the dialing mode to Pulse . Older telephones with a dial operate in Pulse mode.
In **Automatic** mode (default) the HiPath 1100 system automatically detects the dialing mode based on the first pulse dialed. This mode is useful in the case of unknown terminals or extensions where telephones are frequently changed.
Touch-tone telephones usually feature a Consultation button (that causes a brief loop interruption) for placing consultation calls on hold. The loop interruption **time** can be changed in **Timers**, General Tab **Flash Detection Timeout**.

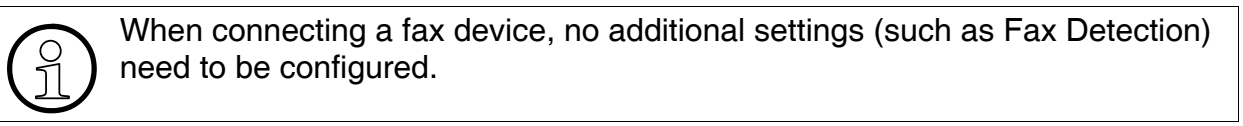
"Type" field

Use the **Type** field to specify the type of equipment connected to the A/B extension or S_0 by selecting one of the following options:

- **Normal** (system telephone, ISDN or analog telephone)
- **Data (Fax/modem)**
- **Answering machine**
- **External door extension**

Note:

The **Data (Fax/Modem)** option uses the same dial tones and call sequence as the public network to avoid problems in detecting pauses, internal dial tones and/or duplicate calls. In addition, the override and call waiting functions are blocked in order to prevent transmission faults.


When connecting a fax device, no additional settings (such as Fax Detection) need to be configured.

The **Answering machine** option requires the same configuration as in "Data (Fax/Modem)". However, if Auto-answering is activated, you can answer calls.

The **External door extension** option supports devices connected directly to analog ports A/B or in the bar of the S_0 module, as follows:

- The external analog entrance telephone device must behave like an analog telephone (dialing, detection and DTMF control)
- The ISDN External door extension device must behave like an ISDN telephone. It must also be controlled by DTMF signals.

Consult External door extension manual to check settings.

"CLIP/COLP" Field

When the **CLIP/COLP** field is selected, the extension called can receive caller ID information (number and/or name). If a configured extension has a telephone with a display, capable of detecting the signal (DTMF or FSK) from a local carrier, Caller ID information (or information from forwarded caller) appears on the display.

- **None** for telephones without a display and without CLIP feature (default).
- **DTMF before ringing** shows the caller's number before the phone rings on the display of analog telephones with CLIP.
- **DTMF during ringing** uses the DTMF protocol to show Caller ID information on the display of analog telephones with CLIP during the first two rings.
- **FSK before ringing** shows the caller's number before the phone rings on the display of analog telephones with CLIP.
- **FSK during ringing** uses the FSK protocol to show Caller ID information on the display of analog telephones with CLIP during the first two rings.
- **FSK before ringing or during a conversation** shows the caller's number on the display of analog telephones enabled for CLIP, before the phone rings or during a conversation.
- **FSK during ringing or when a conversation is in progress** shows the caller's number on the display of analog telephones with CLIP while the phone is ringing or during a conversation.

Note:

The transmission mode for the number and/or name of the extension is specified via DTMF or FSK protocol. This setting must match the mode supported by the terminal (see telephone documentation).

CLIP/COLP facility for the switch must be provided by a local carrier.

"Call Charges" Field

Use the **Call Charges** field to specify whether call charges should be assessed for an extension. If charges are to be assessed, specify the **Cost Factor** to be used (**Factor 1**, **Factor 2**) for the calculation as specified under the **"General" Tab** in the **System Settings** folder.

- **Default**, Default Call Charges

- **Factor 1** means call charges are assessed based on regular rates
- **Factor 2** means call charges are assessed based on higher rates (for example, for pay phones).

"Override" checkbox

When the **Override** checkbox is selected, the extension can be configured for overriding a call or making an urgent call to another extension, allowing the user to talk with the parties having a conversation. When this feature is used, all parties on the line hear a warning signal.

"Pulse/Charge" checkbox

When the **Pulse/Charge** checkbox is selected, a call's pulse charge information can be sent to an analog extension (12kHz/16kHz). With this feature, an extension's telephone set can display the number of pulses or the amount charged for the call. Please refer to the analog telephone documentation to find out whether it supports a metering display and, in this case, which transfer method is used.

"DISA Permission" checkbox

When the **DISA Permission** checkbox is selected, extensions can access system functions from a HiPath 1100 external system through MF dialing (the MSN for DISA is configured in the **"General" Tab of the System Settings** subfolder). An Electronic Lock password must be entered in the extension itself (the default password is 00000) (see User's Manual).

"Auto-Answering" Checkbox

When the **Auto-Answering** checkbox is selected, the **system telephone** assigned to that extension slot will answer calls automatically. When this feature is enabled a microphone is turned on as soon as there is a warning signal. It is possible then to send a message through the **system telephone** speakerphone. The message cannot be answered until the microphone has been enabled.

> ⚠ If the telephone has no microphone (e.g. analog telephones, optiPoint Entry and basic), the Auto-Answering checkbox will not be enabled.

"Hotline" Field

Use the **Hotline** field to configure the feature. When this feature is enabled a specified number stored in the appropriate **System Speed Dialing** slot is automatically dialed when the handset is lifted or the speakerphone key is pressed.

"Warmline" Field

Use the **Warmline** field to specify a time delay (0-9 seconds) between the moment the handset is lifted or the speakerphone key is pressed until the moment the call is connected. In this case the number stored in the **System Speed Dialing** is not immediately dialed. As specified in the **Warmline** field, there is a delay. This extension then can be used as a normal telephone. If no number is dialed during the specified delay time, the number as configured in the **Hotline** field and stored in **System Speed Dialing**, is dialed.

"External-to-External Transfer" Checkbox

The **Transfer External - External** box allows a specified extension to transfer an external call (incoming or outgoing) to another external call.

An External-to-External Transfer over an analog line is terminated in the following three situations:

- Elapsed timeout for external-to-external connection
(code 218);
- When a busy signal is detected
Polarity Inversion (Code 158)

An External-to-External transfer can only be made when at least one of the lines is a digital line and one of the calls is outgoing.

"Silent Monitoring" Checkbox

When the **Silent Monitoring** checkbox is selected, an extension can override another extension without sending a warning signal to the parties that are having a conversation.

"COS Changeover" Checkbox

When the **COS Changeover** checkbox is selected, an extension can temporarily transfer its assigned Class of Service (COS) to another system extension that has a lower COS in order to make calls as if it were at the first extension.

"Collect Call Barring" Checkbox

When the **Collect Call Barring** checkbox is selected, all collect calls to the extension in question are automatically rejected by the system.

"Hide Group Prefix" Checkbox

With the **Hide Group Prefix** checkbox an extension that receives an external call over an external line that belongs to a group of external lines can hide the calling number so it does not show on the display. When a special access call is received and transferred to an extension with this feature is enabled, the external line number does not show on the display.

(For example: An analog extension receives an external call over an external line that belongs to Group 890 - number 24987049. When this checkbox is selected, the display show only 24987049. When this checkbox is clear, the display shows 89024987049, that is, the number for the group of external lines followed by the external number.

To enable this feature, analog extensions must be configured for CLIP.

"Time between Calls" Field

In the **Call Timer** field you can specify a timeout for each outgoing call made by each extension. The time count starts upon connection of a call and it does not restart while the call is in progress (e.g., when there is a transfer). Once the time expires, the call is terminated.

"Default Access to a Group of External Lines" Field

Use the **Default Access to a Group of External Lines** field to specify an access code for a group of external lines for each extension.

Example:
801 and 802 external lines are programmed as part of the 890 group of lines. When using code 002, Extension 11/101 is assigned to Group 890. This means that when the "0" access code is entered at this extension a search for a free line is performed in Group 890.
For code 002, when extension 11/101 is assigned to group 0 and the external access code "0" is dialed, the search for an available line is done on group "0." If no available group line is found and the group is programmed with code 099 - "Overflow for a group of External Lines" on page 34 - the system will search a different specified group.

"Automatic Line Seizure" Checkbox

When the **Automatic Line Seizure** checkbox is selected, the HiPath 1100 system allows the user to dial an external call directly once the handset is lifted without requiring an access code (such as 0). When this setting is selected, you must enter an access code or press the Extension key to make an internal call (see Operator's Manual for instructions for different telephone types).

When the "Automatic ID" option is selected, the activation of this feature may impact the programming of the **"Dialing Mode" Field**. It is recommended that you reconfigure the Dialing Mode (Pulse or Tone) for the extensions.

"Blocked Extensions COS" Field

The **Blocked Extension COS** field is used for specifying one of eight Classes of Service (COS) for a blocked extension. When set, even an extension with an electronic lock activated can be changed to any class of service.

- **No Permission** - external calls can only be made using the System Speed Dialing phonebook.
- **Outward-Restricted Trunk Access with Denied List 1** - external calls are allowed except for the number on the Denied List (4 slots).
- **Outward-Restricted Trunk Access with Denied List 2** - external calls are allowed except for the number on the Denied List (10 slots).
- **Outward-Restricted Trunk Access with Denied List 3** - external calls are allowed except for the number on the Denied List (35 slots).
- **Permission List 1** - external calls can only be made using the System Speed Dialing or the Permission List (4 slots).
- **Permission List 2** - external calls can only be made using the System Speed Dialing or the Permission List (10 slots).
- **Permission List 3** - external calls can only be made using the System Speed Dialing or the Permission List (25 slots).
- **Total Permission** - all external calls are allowed.

Note:

The system administrator is responsible for maintaining the balance of the Classes of Service used by an extension that is blocked or free. This prevents an extension with a restricted service from having free access when the lock is not activated and then keep an unrestricted category when the lock is activated.

"DTMF Tone for Answering Signal" Field

The **DTMF Tone for Answering Signal** field allows you to configure a DTMF tone to be sent to the PABX for each extension with an answering signal for external calls. This allows ticketing equipment (for example, phone booths) to be connected between an extension and a PABX.

Types of DTMF tone include: A, B, C, D, and OFF (default) for deactivating this feature.

"Disable Conditional Call Forwarding" Checkbox

When the **Disable Conditional Call Forwarding**box is selected, an extension can forward incoming calls to a list of destinations, according to conditions specified using a TAPI-type application such as Windows TAPI Browser. The settings of the previous list or Unconditional Call Forwarding will be replaced with the new list settings.

Conditional Call Forwarding Limited by Extension can be configured using a CTI interface.

- The system's maximum number for Call Forwarding is 50.
- Conditional Call Forwarding has priority over an unconditional Call Forwarding.
- Conditional Call Forwarding is not available for S_0 extensions.

Functions: The extension has permission for Conditional Call Forwarding and the system is connected to a PC running a TAPI application.

1. Conditional Call Forwarding rules and conditions for a specified extension can be defined by using a Windows TAPI application
2. Apply the settings to the extension desired.
3. From this moment on the extension is forwarded.

"Call Forwarding - Busy following Call Forwarding - No Answer" Checkbox

When the **Call Forwarding - Busy following Call Forwarding - No Answer** checkbox is selected, an incoming call routed to an extension configured for Call Forwarding - No Answer (see Call Forwarding - No Answer in the User Manual) can be forwarded to the same extension configured for Call Forwarding - Busy.

Urgent Call and Callback when Busy facilities do not work when Call Forwarding - Busy and Call Forwarding - No Answer are activated.
If the extension called is configured to use Do Not Disturb and Call Forwarding - Busy then the call will be forwarded. If Do Not Disturb is enabled at the destination to which the call is forwarded, the caller will hear a busy signal.

"External CFW" checkbox

With the **External CFW** checkbox, you can enable and disable Call Forward Unconditional in the extension.

"Next" Button

Use the **Next** button to go to the next available external line.

"Delete" Button

The **Delete** button deletes all settings configured for a selected MSN.

4.1.2 "Interface CD" Tab

Note:

All system **CD** slots available for connecting **System Telephones** are shown in this manual.

The **Columns** display the current extension settings for each item available.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The assignment of extensions to slots

"Slot" Column

The **Slot** column shows all **CD** available slots in the system for connecting System Telephones and Key Expansion Modules.

"Extension" Column

Use the **Extension** column to select an extension to be assigned a **CD** slot. A system telephone or Key Expansion Module can then be connected to this extension.

"Function" Column

The **Function** column shows the function assigned to the CD interface.

- Main - A system telephone is connected to the slot/extension
- First Expansion - a Key Expansion Module is connected to the slot/extension
- Second Expansion - a Key Expansion Module is connected to a second slot/extension

4.1.3 "Key Assignment" Tab

The **Key Assignment** tab is used for programming System Telephones keys and Key Expansion Modules.

Note:

For details on how to program key features see the chapter HiPath 1100Programming the Keys **in the User's Manual.**

The HiPath 1100 system automatically recognizes system telephones.

Enter:

The **Extension** to which the system telephone is connected then select a Programmable Key to be programmed for a specific function.

If your HiPath 1100 has Key Expansion Modules installed, you can program the function keys using the **Expansion** field.

"Extension" Field

In the **Extension** field select an extension to be configured.

"Module" Field

In the field **Module**, select the module to be configured. The Modules of this field are defined on the button **Change Options**.

"Change Telephone" Button

With the **Change Telephone** button you can select the type of telephone to be configured.

Note:

If using optiPoint telephones, check to see in which slot the UPN card is installed. The first extension to be configured for an optiPoint telephone is the one installed in the card's first slot.

"Type" Field

In the **Type** field select an extension to be configured.

"Change Options" Button

When the **Change Options** button is pressed a pop-up window appears for configuring the telephone.

"Key Modules" Field

The **Key Modules** field allows you to specify the number of Key Modules to be used for expanding programmable keys. The maximum number of modules allowed is 2 per telephone.

See also the optiPoint Manual (A31003-H8400-B988-**-6Z19).

"Memory Module" Checkbox

The **Memory Module** checkbox provides connection for a "Memory Module" that helps configuring the phonebook.

"TA S_0" Checkbox

The **TA S_0** checkbox lets you configure a connection for devices such as a S_0 telephone, a S_0 modem, etc.

"Analog TA" Checkbox

The **Analog TA** checkbox allows you to configure a connection for an analog telephone.

"Telephone TA" Checkbox

The **Telephone TA** checkbox provides a connection to another optiPoint 500 telephone.

> ⚠ The HiPath 1120 requires an additional power supply when using more than four optiPoint 500 (Master or Slave) telephones. (See Chapter 3 (List of Modules) in the Service Manual - A31003-K1160-S100-*-**20.)

"BLF" checkbox

The **BLF** checkbox enables connections from an optiPoint BLF console. OptiPoint BLF is an additional terminal that enables status indication for each extension.

"Feature Codes" Field

In the **Feature Codes** field select a Feature from the list. Depending on the features selected, you may need to set one or two **Parameters** (**First Parameter** and **Second Parameters** fields are enabled).

"Virtual Keypad" Button

The **Virtual Keypad** button switches between the system's **Main Keypad** and KS system telephones **Virtual Keypad**.

The **Virtual Keypad** allows you to expand the number of programmable keys available. The same key is used to indicate the status of two different features. For example, on the main keypad it indicates when Night service is enabled, and on the virtual keypad it activates the Room Monitor feature.

"Print Key Label" Button

The **Print Key Label** button is used for printing labels for programmed features/services in the **"Feature Codes" Field** for each key.

When the button is pressed, the **Print Key Label** button opens a Word-type file (.doc) containing a printable label for features/services programmed for each key. This labels then can be printed or edited.

"Erase disconnected consoles" button"

The **Erase disconnected consoles** button should be used if the message "Key memory is full" is shown on the Display when connecting an optiPoint key module or an optiPoint BLF console to the optiPoint 500 telephone set or activating a virtual keypad (See User Manual - A31003-K1270-B102-*-*) on a system telephone (KS).

> ⚠ If this code is used, all the programmed keys of the disconnected consoles will be lost.

4.1.4 "Flexible Number" Tab

In the **Flexible Number** tab you can change the default settings for internal numbers.

Note:

You can enter up to five digits.

This tab displays all of the extensions that are **connected**.

The **Columns** show the name/number assigned to each extension.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The new extension number in the **Extension** column as well as the name in the **Name** column, if necessary.

"Port" Column

The **Port** column shows the logical slot for the system's extensions.

"Extension" Column

In the **Extension** column select an extension to be configured and enter the new number.

"Name" Column

In the **Name** column you can change the name (up to 16 characters) entered in the subfolder **Extensions** for the Basic Configuration. For system telephones, the name is used instead of a number or with a number.

4.1.5 "ISDN Telephones" Tab

"Extension" Column

The **Extension** column shows the slots available for connecting ISDN telephones.

"Slot and Physical Port" Column

The **Slot and Physical Port** field shows the slot where the S_0 module is connected as well as the logical number for the S_0 port.

When using Automatic Internal MSN Distribution, many MSN numbers can be configured for each S0 interface(See Programming Manual - A31003-K1270-U100-X-XX19).

4.1.6 "Call forward - no answer" tab

The **Call forward - No answer** *tab* is used to set a new destination for the call if it cannot be answered.

"Extension" Field

In the **Extension** field you can select an extension to configure (this can also be done by selecting a sequence of extensions).

"Call Forward Configuration" field

"Destination" field

The **Destination** field allows you to configure the destination of the forwarded call. The destination can be set as: OFF, Extension, External line groups, Cal groups, UCD group or Virtual Ports.

If the External line groups option is chosen, call forwarding will be enabled even if the Call Forward Trunk Unconditional checkbox is disabled.

"Number to be called" field

In the **Number to be called** field, insert a number of up to 20 digits to which calls should be forwarded. To enable this field, the destination configured should be a Group of external lines.

Note:

You can set Call Forward Trunk Unconditional for up to 8 extensions. If the user tries to configure more extensions than the permitted number, a message will appear.

4.2 PABX Trace

PABX Trace is a tool used to monitor the events that have occurred in the PABX during a certain period.

Note:

This service can also be started/stopped using the feature codes (see User Manual).

Enter:

The items that you wish to analyze:

"Profiles" field

The **Profiles** field allows you to set the profiles of the PABX to be monitored using the trace. You may select more than one profile of the PABX.

Possible profiles are:

- Custom (this option will indicate that a profile created with the XTracer is stored in the PABX)
- Analog extensions
- Analog trunks
- optiPoint extensions
- KS extensions
- ISDN Phone
- ISDN trunk
- Voice mail
- CLIP/FDW
- Internal connections
- Sensor/Relay
- ISDN/CAS Layer 3
- ISDN Layers 1 and 2
- optiPoint Layers 1 and 2.

"Clear" button

The **Clear** button allows you to delete the profile settings, including the custom option.

"Extended trace" field

The **Extended trace** field allows you to save the information on the trace in a non-volatile memory.

"Enable" checkbox

The **Enable** checkbox allows **you** to enable the extended trace.

"Trace" field

Use the **Trace** field to save the information of the trace in a volatile memory.

After switching off or updating data you do not need to reconfigure the trace, although only the configuration and the status will be saved. The data will be lost when any of these events occur.

"Start" button

The **Start** button sends a message for the PABX to start the trace. If the settings are changed, this will be inserted before starting the trace.

"Stop" button

The **Stop** button sends a message for the PABX to stop the trace.

"Download" button

The **Download** button manages the *.dtr file that must be sent to technical support. The download should be made after the trace is finished.

This option will only be available in Restricted mode (CTRL+SHIFT+F5), where the support technician should have the development password to access this option. The Trace tab will not be visible when the Manager is in Offline mode and will not be printed in the Manager Report.
Consult technical support for further details.

4.3 Service

The **Service** tab provides general information on the services available.

The **Service** subfolder contains the following tabs:

- "General" tab
- "Extensions" tab
- "MSN" tab
- "External lines" tab

You can save a backup copy of the database of the services in a .bup file.

4.3.1 "General" tab

The **General** tab allows you to see the status of the services (active or not).

"Service" field

The **Service** field displays the list of services that can be viewed. These services are:

- Call Forward Trunk Unconditional

- Call Forward Trunk No Answer
- Call Forward Trunk on busy
- Night service
- Extended trace.

"Status" field

The **Status** field displays the status of the service (enabled or disabled).

"Destination" field

The **Destination** field shows the destination of forwarded calls.

4.3.2 "Extensions" tab

The **Extensions** tab allows you to see the status of the services according to each extension (enabled or not enabled).

"Service" field

The **Service** field displays the list of services for each extension that can be shown. These services are:

- Call forward
- Call forward - No answer
- Call forwarding - conditional
- UCD Group login
- Handsfree answerback
- Data transmission
- Headphone
- Electronic lock
- UCD group login
- Hunt group login
- Restriction for sending MSN
- Do not disturb
- Call Waiting signaling tone.

"Status" field

The **Status** field displays the status of the service of each extension (enabled or disabled).

"Destination" field

The *Destination* field shows the destination of forwarded calls.

4.3.3 "MSN" tab

The **MSN** tab allows you to see the status of the services for each MSN (enabled or not enabled).

"Service" field

The **Service** field displays the list of services of each MSN that can be viewed. These services are:

- Call forward
- Call forward - no answer
- Call forwarding - busy
- Busy signal

"Status" field

The **Status** field displays the status of the service of each MSN (enabled or disabled).

"Destination" field

The **Destination** field shows the destination of forwarded calls.

4.3.4 "External lines" tab

The **External lines** tab allows you to see of the status of the services for each line (enabled or not enabled).

"Service" field

The **Service** field displays the list of services of each line that can be viewed. The service that can be viewed is:

- Internet access.

"Status" field

The **Status** field displays the status of the service of each line (enabled or disabled).

"Destination" field

The **Destination** field shows the destination of forwarded calls.

4.4 Entry Voice Mail - EVM

EVM (Entry Voice Mail) is a Voice Mail solution for HiPath 1100 systems. Features are controlled by pressing keys on a system telephone or any type of equipment with MF dialing capability.

Feature Overview:

- 24 standard mailboxes, 2 of which can be used as forwarding mailboxes (message/greeting for Day or Night Service).
- Mailboxes can be configured automatically or by the user.
- Capability for message/music playback before answering.
- Up to two different greetings.
- Manual or Day/Night Service greeting selection.
- Context-sensitive User's Guide
- Messages inform users of current menu options.
- Two parallel actions are allowed for call transfer and auto-answering (2 message ports).
- Capability for up to 120 minutes of voice recording.
- Maximum voice message recording time for each mailbox is 5 minutes, configurable from 1 to 5 minutes. The default setting is 2 minutes.
- Date and time display for each message.
- Memory overload alert when it exceeds 80%.

During EVM (Entry Voice Mail) configuration both channels are blocked. EVM settings can only be used after exiting the EVM subfolder.

When a call to an extension is forwarded to an EVM mailbox (call forwarding - No answer or Busy) a message is played, explaining why the call is being forwarded.
These messages are played before the greeting message and cannot be overwritten.
Messages:

- Call Forwarding - Busy after Call Forwarding No Answer: "The line you are calling is busy".
- Call Forwarding - No Answer: "The user you are calling is not answering."

The **Entry Voice Mail - EVM** subfolder contains the following five tabs:

- "General" Tab
- "Default Mailbox" Tab
- "Message Settings " Tab
- "EVM Access" Tab
- "Virtual port" tab

4.4.1 "General" Tab

Note:

The **Columns** show the current extension configuration status for each item available in the fields immediately below.

You can import/export the settings to other items using the Copy and Paste functions.

An EVM Module can operate simultaneously with a Fax/DID facility except as follows: An EVM is not configured for Auto-Answering, since this capability is covered by the Fax/DID Module.

Enter:

The settings as you want them in the appropriate fields according to the order of the extensions:

"Messaging" Field

Use the **Maximum Time** list **(minutes)** in the **Greeting Message** field, to specify the time available for the caller to record a message.

Note:

Setting range: 1 to 5 minutes

Default setting: 2 minutes

Filed "Backup Copy"

Use the **Backup Copy** button in the **Backup Copy** field for storing the mailbox contents containing personal greetings and messages.

The **Reset** button can be used to retrieve mailbox contents that were stored in the selected file.

"Maximum Length of Number" Input Field

Use the **Maximum Length of Number** field to specify the length of the destination number, for Auto-Answering purposes.

Note:

Setting range: 2 to 20 digits

Default setting: 5 digits

Maximum Number of Auto-Configurable Mailboxes" Field"

Use the **Maximum Number of Auto-Configurable Mailboxes** field for specifying how many mailboxes can be configured by the user. No other settings need to be configured for the auto-configurable mailboxes. If the number of mailboxes allowed is exceeded, it will not be possible to configure settings correctly when using the EVM.

If mailboxes have already been configured using the Manager, fewer mailboxes will be available for auto-configuration. For example, if there are 12 mailboxes and 10 have been configured through Manager, only 2 boxes will be available for configuration by the user.

Note:

Setting range: 01 to 24 mailboxes

Default setting: 12 mailboxes

"Audio Quality" Field

Use the **Audio Quality** field to specify the quality for the greeting or message playback.

- Best - for greetings and messages.
- High quality for greetings/Best quality for messages
- High quality for greetings and messages.

"Voice Prompt" Field

Use the **Language** field to specify the language for the mailboxes.

If you select a language that is not available for the EVM interface, the setting will default to English. If English is not available, the setting will default to the first available language.

"EVM Options" Field

You can do the following in the **EVM Options** field:

- Use the **Firmware Update** button to load new firmware.
- Use the **Update Language File** button to add or delete a language.
- Use the **Reset EVM Module** button to restart Entry Voice Mail.
- Use the **Reset Default Configuration** button to delete all personal messages and greetings stores in the Entry Voice Mail.

4.4.2 "Default Mailbox" Tab

Use the **Default Mailbox** tab to configure personal mailboxes.

Note:

The **Columns** display the current extension settings for each item available.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

Mailboxes assigned to selected extensions.

Mailbox

The system's mailboxes that can be assigned to extensions are described in the **Mailbox** column, Mailbox **field,** or the Next Mailbox **button.**

"Extension" Field

In the **Extension** field specify the extension to be assigned to a mailbox or, if using MSN number Attendants, select "EVM Virtual Ports - 744 to 747" to be assigned to a mailbox as MSN number Attendants.

"Greeting Configuration" Column

The **Greeting Configuration** column specifies the type of greeting to be used for a specific mailbox.

- In the "**Manual**" option, select the Type of Greeting (1 or 2) that was specified for the mailbox in the Greeting column.

- For the "**Day/Night Service**" option a mailbox will use:
  - Greeting 1 - Day
  - Greeting 2 - Night

"Greeting" Column

The **Greeting** column specifies the type of greeting for a mailbox according to the setting in the **Greeting Configuration** column, that is, if **"Manual"** or "**Day/Night**" is selected.

"Recording" Column

The **Recording** column allows you to record a greeting or a message to be played by the EVM.

"Extension Mailbox Configuration" Field

In the **Extension Mailbox Settings** field you can select the following options for configuring a mailbox:

Personal greetings

This allows you to save Greetings 1 and 2 saved by the HiPath 1100 system on your PC. You can also assign greetings that were already saved in the HiPath 1100 system to a specific mailbox.

Reset Password

This allows you to reset the password to its default: 1234.

Backup Copy

Use the **Backup Copy** button to save personal greetings and messages for the selected mailbox.

Use the **Reset** button to reassign a personal greeting and messages to the selected mailbox.

4.4.3 "Message Settings " Tab

In the **Message Settings** tab you can configure mailbox settings for Call Forwarding (greeting message with transfer option, day/night service operation, shortcut selection).

Note:

The **Columns** display the current extension settings for each item available.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

Mailbox settings for Call Forwarding

Mailbox

Call Forwarding mailboxes can be selected using the **Mailbox** column, **Mailbox** field or the **Next Mailbox** button.

"Message Port" Field

Use the **Greeting Message Port** column to specify which port is available for the greeting selected **Greeting Message** column, and that is going to be used by a mailbox.

"Greeting Configuration" Column

The **Greeting Configuration** column specifies the type of greeting to be used for a specific mailbox.

- In the "**Manual**" option, select the Type of Greeting (1 or 2) that was specified for the mailbox in the **Greeting** column.
- For the "**Day/Night Service**" option a mailbox will use:
  - Greeting 1 - Day
  - Greeting 2 - Night

"Greeting" Column

The **Greeting** column specifies the type of greeting for a mailbox according to the setting in the **Greeting Configuration** column, that is, if **"Manual"** or "**Day/Night**" is selected.

"Mailbox Settings" Field

The **Mailbox Settings** field lets you select the following options:

Personal greetings

This allows you to save Greetings 1 and 2 saved by the HiPath 1100 system on your PC. You can also assign greetings that were already saved in the HiPath 1100 system to a specific mailbox.

Reset Password

This allows you to reset the password to its default: 1234.

4.4.4 "EVM Access" Tab

Use the **EVM Access** tab to configure the access to the mailbox.

Note:

The **Columns** show the current configuration for the available mailboxes.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The information requested for configuring the mailboxes.

"EVM Access" Field

The **EVM Access** field shows available EVM accesses.

"Access Code" Field

Use the **Access Code** field to specify the access number for configuring or checking the auto-configurable EVM mailboxes (default is 790).

"Overflow Timeout" Field

Use the **Overflow Timeout** field to set a period of time, in seconds, for a call on Hold to be transferred to an extension specified in the **Overflow Destination** field.

"Hold Queue" Field

Use the **Hold Queue** field to specify how many calls must remain on a specific queue.

"Name" Field

Use the **Name** field to specify the name that shows on the telephone display when a call to an extension is forwarded to a specific mailbox. When there is no name specified, the access number will be displayed.

"Overflow Destination" Field

Use the Overflow Destination field to specify an extension for receiving a transfer once the timeout has expired.

4.4.5 "Virtual port" tab

The **Virtual port** tab allows you to define a flexible number for the virtual EVM ports and the virtual Fax/DID ports.

"Virtual port" field

The **virtual port** field shows the available slots of the virtual ports.

"Flexible number" field

Use the **Flexible number** field to change the numbers of the predefined virtual ports.

Note:

You can enter up to five digits.

Virtual ports:

- **From 0 to 3** - Virtual Fax/DID ports
- **From 4 to 7** - Virtual EVM ports

4.5 SNMP

The SNMP - Simple Network Management Protocol - is a TCP/IP protocol that provides a user-friendly platform for managing software for systems connected to the TCP/IP network. In practical terms, the SNMP is used as a "Management agent" on the HiPath 1100, allowing central monitoring and management of the PABX.

Each PABX managed by the SNMP has a set of variables that store information on its current state. This volume of data managed by the SNMP is defined in the MIBs - Management Information Bases. MIBs are data models that describe all the information required for managing the network.

To access this information, install and connect the LAN ports **of the SLIMC, SADSLIM, LIMC or ADSLIM modules** to the TCP/IP network. That way, any available information may be accessed from external management applications such as HP Open View. In other words, the PABX is monitored by management software that is run in a server station. The SNMP service will provide information to the PABX via the Agent when it receives requests from the Manager connected via the TCP/IP network. The Agents and Managers communicate using SNMP messages that control the external applications:

SNMP messages

The SNMP messages used for communication between the SNMP management agent (HiPath 1100) and the external applications are controlled by the following commands:

- **Get**, used when the manager requests the agent to obtain data.
- **Get Next**, used when the manager requests the agent to obtain a sequential reading of data.
- **Set**, used when the manager requests the agent to alter an item of data.
- **Trap**, used by the agent to communicate a previously defined event to the manager.

There is an integrated mechanism to manage SNMP traps if a class B error occurs. The SNMP management agent assesses the error messages, and if they have a corresponding definition, certain traps are put into place and sent to a configurable IP address as groups of data. A maximum of five applications are available that support SNMP version 1.0, such as the HP Open View.

The **SNMP** subfolder contains the following tabs:

- Configuration
- Community
- Trap Community

This folder will only be enabled if an **ADSL expansion board** (SLIMC, SADSLIM, LIMC or ADSLIM modules) is configured. (see **PABX Information -> "Board Configuration" Tab**).

4.5.1 Configuration

The **Configuration** tab allows you to configure the properties of the LAN and system identification fields. If the LAN configuration is changed, all the connections of the module will be lost.

"LAN interface" field

In the **LAN interface** field, insert the IP address of the ADSL expansion board if the **Use the following IP address** checkbox is selected. It is also possible to obtain the IP automatically by leaving the **Get IP # automatically** checkbox selected.

Sub-network mask: The sub-network mask serves to create sub-networks in a network structure of the system with only one official IP address. To equip each component with its own IP network, it is possible to divide the official IP address into "different IP networks" using a sub-network mask. However, this new division is only valid within an internal system network.

"System Identification" field

The **System Identification** field is where MIB registers are performed. This information can be sent by reading the MIB *(***Get**) on the Manager's station. The systems are not subject to content limitations and serve only to identify the communication system being used by the SNMP.

"Contact person" field

In the **Contact person** field, insert the name of the technician responsible for the PABX.

"System name" field

In the **System name** field, insert the name of the PABX. The domain name is commonly used on the SNMP.

"Location" field

The **Location** field should contain a description of the location of the PABX.

"Service" field

"Enable SNMP" checkbox

The **Enable SNMP** checkbox enables and disables the SNMP service.

4.5.2 Community

In the **Community** tab, you can configure the Managers that have administrative rights using the SNMP on the PABX.

Note:

Access to SNMP data is only granted if the respective IP addresses and Community names coincide.

The **Columns** show the current configuration for the available Managers.

You can import/export the settings to other entries using the Copy and Paste functions.

Enter:

The information requested to configure the community.

"Position" field

The **Position** field shows the five positions available for configuring the Managers.

"Community Name" field

Use the **Community Name** field to insert the Community Name, which serves as an access password. In order to access the PABX via SNMP, the Manager must indicate the community name.

Note:

For security reasons, we recommend that default communities be changed according to client specifications.

"Transport Label" field

In the **Transport Label** field, insert the IP address of the Manager's machine or a wildcard (everybody).

- Everybody;
- Specific IP address.

If the option selected is a specific IP address, a field will be enabled so that the IP address can be inserted.

"Access" field

The **Access** field defines the type of control that can be exercised over the MIBs. These can be as follows:

- **Read** means that the associated IP address has only read access.
- **Read/Write** means that the associated IP address can have both read and write access.
- **None** means that the associated IP address has no access. You can use this option to deactivate records temporarily without deleting them completely.

4.5.3 Trap Community

Use the **Trap Community tab to configure the destinations for SNMP error messages (alarms).**

Note:

If a trap destination is configured, all the corresponding fields must be filled in.

The **Columns** show the current configuration for the available destinations.

You can import/export the settings to other entries using the Copy and Paste functions.

Enter:

The information required to configure the destination.

"Position" column

The **Position** column shows the five positions available for configuring destinations.

"Community Name" column

In the **Community Name** column, insert the community name to identify which community the trap is being attributed to. This name also serves as an access password.

"IP address" field

Use the **IP address** field to insert the address of the IP of the trap destination. Wildcards are not permitted for trap.

"Target Owner" column

Use the **Target Owner** column to store a text with the description of the receiver of the" trap".

"Target Status Active" column

Use the **Target Status Active** column to activate or deactivate the destination of the trap setting temporarily.

4.6 Account code

External calls can be assigned account codes which provide more control over telephony costs. This information may be presented on the billing ticket. An account code is defined by the user as a sequence of up to 10 random digits (0...9). For example, the number of a lawsuit.

In system telephones, this feature is selected before or during a call, using the menu, an account code or a programmable key, according to the switch.

You may also define whether the cost code is required to make a call and whether the cost code to be used should be configured in the system beforehand.

"Position" column

The **Position** column offers 500 available positions for storing account codes.

"Account code" column

The **Account code** column is used to insert codes of up to 10 digits. Only numerical characters are permitted for setting codes.

"System Configuration" field

"Account Code" field

The **Account Code** field includes a definition of whether it is mandatory or optional to put in a account code in order to make a call and whether the account code used should be configured beforehand.

"Mandatory" checkbox

With the **Mandatory** checkbox selected, you must insert the account code at the start of the call or the call will not be completed.

"Optional" checkbox

With the **Optional** checkbox selected, you must insert the account code at the start of the call to be able to complete it.

"Validate account code entry" checkbox

With the **Validate account code entry** *c*heckbox selected, only previously configured account codes can be used. If an invalid account code is typed in, a negative tone will sound or a message will be displayed.

If the checkbox is not selected, any account code can be used.

In analog and S_0 telephones, if the checkbox is not selected, only 10-digit account codes will be accepted. Otherwise, the call will not be completed.

4.7 Class of Service (COS)

COS consists of the level of access to external lines assigned to an extension. PABX external lines are grouped in the **Extensions** subfolder in the **"General" Tab "Blocked Extensions COS" Field**. It is possible, therefore, to block outgoing calls to certain external numbers or to allow calls to some of those numbers only. There are eight categories of external line access. These categories can be assigned to: **Day Service** and **Night Service**.

These categories are designated according to the **Night Service** feature activation. If **Night Service** is not activated, the extension uses a **Day Service** Class of Service. When **Night Service** is activated the type of access is a **Night Service** Class of Service. All classes of service allow answering external calls and making internal calls.

Categories

- **No Permission**

You can only make external calls using System Speed Dialing.

- **Permission List 1, 2 and 3**

Extensions can only dial numbers that start with these combinations. If you try to dial one of these numbers, the extension will answer with a busy signal.

Even though restrictions are set by the lists, the numbers entered in the Speed Dialing directory can be accessed by dialing the abbreviated number.

- **Permission List 1, 2 and 3**

Extensions can only dial telephone numbers beginning with these combinations. When any other number is dialed, the phone answers with a busy signal.

Even though restrictions are set by the lists, the numbers entered in the Speed Dialing directory can be accessed by dialing the abbreviated number.

- **Total Permission**

You can make all external calls.

Note:

The **Columns** show the current extension configuration status for each item available in the fields immediately below.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The settings of your choice in the appropriate fields, for each extension.

The **Class of Service** subfolder contains the following tabs:

- "Day Service Category" Tab
- "Night Service Category" Tab
- "Permission Lists"
- "Denied Lists" Tab

4.7.1 "Day Service Category" Tab

In the **Day Service Category** tab you can assign Classes of Services to extensions for Day Service hours.

"Extension" Field

In the **Extension** field select an extension to be assigned a Class of Service for external lines.

"Line Group" Field

In the **Line Group** field select the group of external lines to be assigned a Class of Service.

"Category" Field

In the **Category** field select a category for the Group of External Lines.

4.7.2 "Night Service Category" Tab

The **Night Service Category** tab has the same functions as the **"Day Service Category" Tab**, but it handles the night period as specified in the **Calendar** folder.

"Extension" Field

In the **Extension** field select an extension to be assigned a Class of Service for external lines.

"Line Group" Field

In the **Line Group** field select the group of external lines to be assigned a Class of Service.

"Category" Field

In the **Category** field select a category for the Group of External Lines.

4.7.3 "Permission Lists"

In the **Permission List** tab you can configure the Permission Lists. The numbers that can be dialed are specified in this list.

Note:

Each of the three lists has a field for entering data.

Enter:

In each list a number prefix (e.g., 089722) or an entire phone number to be:

- registered by clicking and entering the number;
- modified by editing the entry in the list field or
- deleted by selecting the list field to be deleted and clicking .

All numbers that can be dialed by each extension are entered following this procedure.

"List 1" Field

In the **List 1** field enter a number prefix or the entire telephone number that can be accessed by the extension. You can enter up to **10** numbers.

"List 2" Field

In the **List 2** field you can enter a number prefix or the entire telephone number that can be accessed by the extension. You can enter up to **25** numbers.

"List 3" Field

In the **List 3** field enter a number prefix or an entire telephone number that can be accessed by the extension. You can enter up to **25** numbers.

4.7.4 "Denied Lists" Tab

The **Denied Lists** tab works the same way as the **Permission Lists** tab. Except in these lists you specify the number that **cannot** be dialed by the extension.

Note:

Each of the three lists has a field for entering data.

Enter:

In each list a number prefix (e.g., 089722) or an entire phone number to be:

- registered by clicking and entering the number;
- modified by editing the entry in the list field or
- deleted by selecting the list field to be deleted and clicking .

All numbers that can be dialed by each extension are entered following this procedure.

"List 1" Field

In the **List 1** field you can enter a number prefix or the entire telephone number that cannot be accessed by the extension. You can enter up to **10** numbers.

"List 2" Field

In the **List 2** field you can enter a number prefix or the entire telephone number that cannot be accessed by the extension. You can enter up to **25** numbers.

"List 3" Field

In the **List 3** field you can enter a number prefix or the entire telephone number that cannot be accessed by the extension. You can enter up to **35** numbers.

For both Permission Lists and Denied Lists there are some pre-programmed numbers that can be changed, if necessary.

4.8 Groups

In the **Groups** subfolder you can configure different types of groups in each of the following tabs:

- "Pickup Groups" Tab
- "Call Groups" Tab
- "Hunt Group" Tab
- "External MWI Group" Tab
- "UCD Groups" Field
- "Associated Groups" Tab
- "Music On Hold Groups" Tab

4.8.1 "Pickup Groups" Tab

In this tab you can configure **Pickup Groups**. This allows an extension to answer calls that ring at other extensions belonging to the same Group.

Note:

A maximum of 16 **Pickup Groups** is allowed.

This tab will show only the extensions that are available.

When an extension in the Pickup Group is called, all system telephones set for the group will signal the call on the display.

Analog telephones and system telephones without a display indicate an incoming call by sending an **Alert Ring Signal**

Enter:

The **Extensions** to be assigned to the **Pickup Group** in the "*Selected*" field. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the "*Available*" field. You can also make the selection by double-clicking the selected item with the left mouse button.

"Pickup Groups" Column

The **Pickup Groups** column shows the groups that can be configured.

"Group Extensions" Column

The **Group Extensions** column displays the extensions assigned to a specific Group.

"Enable Alert Ring Signal" Checkbox

When the **Enable Alert Ring Signal** checkbox is selected, you can specify a timeout for the alert ring (0-59 seconds). When a call is not answered within the specified time, a short ring will be sent to the Pickup Group.

4.8.2 "Call Groups" Tab

In this *tab* you can configure **Call Groups**. In a Call Group an extension can answer calls that ring at other extensions in the same Group. When the Group receives a call all available extensions in the Group are signaled. A user can sign-off from the Group for the periods of time he/she is not available.

Note:

A maximum of 10 groups can be configured as **Call Groups** (**Group Access Codes** from 770 to 779).

Enter:

The **Extensions** to be assigned to the **Call Group** in the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available" field.* You can also make the selection by double-clicking the selected item with the left mouse button.

"Call Groups" Column

The **Call Groups** column shows the groups that can be configured.

"Access Code" Column

The **Access Code** column shows the code used to call each group. You can change these codes, if necessary.

"Name" Column

In the **Name** column you can enter a name for a **Call Group**. For system telephones, the name is used instead of a number or with a number.

Note:

A maximum of 16 characters can be entered in the **Name** column field. optiPoint telephones display up to 16 character while system telephones (E822 and Profiset 3030) display only up to 15 characters.

"Group Extensions" Column

The **Group Extensions** column displays the extensions assigned to a specific Group.

4.8.3 "Hunt Group" Tab

In this *tab* you can configure **Hunt Groups** for creating extension groups assigned to answer calls to a specified number. This specified number identifies the group. When an extension does not answer an internal or external call within a specified period of time, the call rings consecutively at the other available and busy extensions in the group. When not available, a user may sign-off from a **Hunt Group**.

Note:

Extensions can be grouped in a maximum of 10 **Hunt Groups** (780 to 789).

This tab will show only the extensions that are available.

Enter:

The **Extensions** to be assigned to the **Hunt Group** in the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available" field.* You can also make the selection by double-clicking the selected item with the left mouse button.

"Hunt Groups (HG)" Column

The **Hunt Groups** column shows the groups that can be configured.

"Access Code" Column

The **Access Code** column shows the code used to call each group. You can change these codes, if necessary.

"Name" Column

In the **Name**column (up to 16 characters) you can enter a name for a **Hunt Group**. For system telephones, the name is used instead of a number or with a number.

"Hunt advance timer" column

In the **Hunt advance timer** column you can set a time interval in which the external or internal call must be answered by the member of the group. Different times may be set for each group. If the call forwarding times out before the member of the group answers, the call will ring consecutively in the other free extensions of the group.

The times are set from 01 to 24 in 5-second cycles.

The Hunt Group will not be forwarded or overflow if the call is not answered.

"Group Extensions" column

The **Group Extensions** column displays the extensions assigned to a specific Group.

"Hunt Mode" Field

On the **Hunt Mode** field you can specify how each group will conduct a search for an available extension: linear search or round-robin search.

- A linear search always starts from the first extension in the group.
- A round-robin search starts after the last extension selected.

4.8.4 "External MWI Group" Tab

In this *tab* you can configure an **External WMI Group** for a group of extensions assigned to answer calls for a MWI (Message Waiting Indicator) from an external Voice Mail Server.

Note:

The Message Waiting Indicator is signaled by means of a LED key on system telephones and by a distinctive audible tone on standard telephones. In the case of a standard telephone enabled for CLIP FSK with MWI service the signal can be configured to show an icon on the display or some other type of indication.

Enter:

The **Extensions** that are part of a **External MWI Group** in the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the "**>**" button to move to the *"Selected"* field. Use the "**<**" and "**<<**" buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"Enable External MWI" Checkbox

The **Enable External MWI** box enables the MWI feature for an extension group.

4.8.5 "UCD Groups" Field

A UCD Group (Uniform Call Distribution) is a group of extensions assigned to answer calls destined for a specific number that identifies the group. Internal or external calls are then evenly distributed among the members of a group or among agents, first to the extension that has been free the longest. Then they are routed to the extension that has been free the longest. Calls made to a particular extension do not affect the distribution pattern. The calls that are not answered are not rerouted within the group.

Note:

Users can add or delete their own extensions in the UCD group (see User Manual: UCD Group Login and Logout).

You can also view the UCD group call statistics using the Call Center Interaction Center Smart software.

Extensions can be grouped in a maximum of 10 UCD Groups (790 to 799).

The **Columns** show the current extension configuration status for each item available in the fields immediately below.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The settings as you want them in the appropriate fields according to the order of the extensions.

"UCD Groups" Column

The **UCD Groups** column shows the groups that can be configured.

"Access Code" Field

The **Access Code** column shows the code used to call each group. You can change these codes, if necessary.

"Name" Field

In the **Name**field (up to 16 characters) you can enter a name for a **UCD Group**. For system telephones, the name is used instead of a number or with a number.

"Configure Extensions to Create a Group" Field

The **Configure Extensions to Create a Group** field allows you to select the **Extensions** for creating a **UCD Group**. This is done using the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"Message for Calls on Hold" Field

In the **Message for Calls on Hold** field select an extension for connecting a message device for playing a message or an external music source for a UCD Group when all extensions are busy and none are available to answer a call.

"Overflow Timeout" Field

In the **Overflow Timeout** field you can specify a different period of time for starting a recorded message for each UCD group.

The default setting is for playing a message immediately or as soon as a call is placed in a queue.

"Previous Message for Calls On Hold" Checkbox

When **Previous Message for Calls on Hold** box is selected, a message is played to an incoming call before the call rings at a UCD group.

"Round-robin Distribution" Checkbox

When the **Round-robin Distribution** box is selected, an incoming call is automatically rings at the extension of the next available Agent. If no agents are logged in, calls are forwarded to an overflow call destination.

"Collect Call Barring" Checkbox

When the **Collect Call Barring** box is selected, all collect calls to a UCD Group are automatically rejected by the system. The system bypasses Collect Call Barring for members of a UCD Group, that is, call barring is only verified for the group.

If a call has been answered at least once by the system, Collect Call Barring cancels the blocking. When an incoming call over a digital line is forwarded for not being answered (*14) and Collect Call Barring is activated, the call will ring at the First Attendant for the external line.

"Agent Status after Signaling Timeout" Checkbox

The **Agent Status after Signaling Timeout** checkbox allows you to determine an Agent status after the signaling timeout expires.

When this checkbox is selected, a call is transferred to another group member after the timeout expires, and the agent continues to be available in the UCD Group (see Available/ Unavailable Agent for a UCD Group, in the Users Manual). Otherwise, the agent becomes unavailable.

"Queue Size" Field

In the **Queue Size** field you can specify the UCD Queue size for each UCD Group. This means you can specify how many calls can wait in line when all UCD Group agents are busy or unavailable.

Note:

Calls are distributed among group members according to priority and waiting time on the queue.

"Time for Agent's Notes" Field

In the **Time for Agent's Notes** field you can specify a period of time after each call for the Agent to stay away from the Group in order to take notes undisturbed.

"Overflow Call Destination" Field

In the **Overflow Call Destination** field you can specify the destination for a UCD call when:

- All agents are "logged out"
- A UCD Queue reaches the maximum number of calls waiting
- The queue's overflow timeout expires.

"Minimum Message Timeout for Calls on Hold" Field

In the **Minimum Message Timeout for Calls on Hold** field you can specify a minimum timeout for a message playback for the UCD Queue.

"Message Connection Timeout" Field

In the **Connection Timeout for Message** field you can specify a different period of time for starting a recorded message for each UCD group.

"Ring Signal Timeout for Agents" Field

In the **Agent Signaling Time** field you can specify a period of time for an incoming call to keep ringing at an Agent's station in the Group.

4.8.6 "Associated Groups" Tab

In this *tab* you can assign groups to use the **Associated Group** feature. More than one extension can be assigned to one master-telephone.

Note:

To ensure proper operation all extensions must have system telephones installed.

An extension can belong to many groups simultaneously.

There are 8 groups available with 16 extensions for each group.

Enter:

The **Extensions** that will make up the **Associated Group** in the *"Selected" field*. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"Slot" Column

The **Slot** column shows the groups that can be configured.

"Executive" Column

The **Executive** column shows the extensions that can be assigned as Executive extensions in a specified **Associated Group**.

"Group Extensions" Column

The **Group Extensions** column shows the extensions assigned to a specific **Associated** Group.

4.8.7 "Music On Hold Groups" Tab

In this *tab* you can specify groups for the **Music on Hold** feature. Music from an external source will be played to external calls that are on hold in these extensions.

- Internal: The caller on hold hears music generated by the system;
- External: The caller hears music from an external music source (e.g., a radio) connected directly to the system's external music input
- External connected to an extension: The caller hears music from an external music source (e.g., a radio) connected directly to an extension.

Note:

The extensions can be entered into two **MOH Groups** or left unassigned.

Enter:

The **Extensions** for creating a **MOH** Group. This is done using the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"MOH Group" Column

The **MOH Group** column contains two **MOH Groups** that the user can configure.

"Type" Column

The **"Type"** column specifies the source for the Music On Hold.

"Source" Column

The **Source** column specifies the extension connected to the music source.

"Group Extensions" Column

The **Group Extensions** column shows the extensions assigned to a specific **MOH Group**.

4.9 ISDN

Each ISDN access provides two communications channels (64 kbps each) as well as a capability for sharing applications such as video conferencing or Internet access. Depending on your, some facilities may be provided, including Caller ID, Caller ID Blocking, Direct Dialing to Extensions.

The **ISDN** subfolder contains the tabs for specifying the data for the S_0 module and the TME1 module (with E1 CAS or S2 access) as follows:

- "Configurations" Tab
- "Slot S0" Tab
- "Advanced Configuration" Tab

4.9.1 "Configurations" Tab

The following connection types are available:

- **Point-to-Multipoint** (PMP)
  See also Point-to-Multipoint Basic Access
- **Point-to-Point** (PP)
  See also Point-to-Point Basic Access and
- **S_0 Internal Bus** for ISDN telephone connections

Note:

When you only have ISDN lines to use, the settings for DID Prefix, External Number Phonebook, Country Code, and Area Code must be configured.

Enter:

You can select the Operation Mode (Point-to-Point, Point-to-Multipoint and S_0 Bus) from the list in the **Operation Mode** column.

"Slot" Field

The **Slot** field shows the number of S_0 ports available on the system.

"ISDN interface" field

The **ISDN Interface** field indicates the slot to which the S_0 or TME1 module is connected and the logical number of S_0 ports.

- S_0 Module: S_0 (slot - logic number)
- TME1 Module: S2 (slot - logic number)

If you want to use Automatic MSN Internal Distribution, you must configure S_0 interface for operating in S_0 Bus mode.

"Remote Operation Mode" Field

The **Remote Operation Mode** field specifies the type of connection between digital lines and the local carrier lines.

- **Point-to-Multipoint** (PMP)
- **Point-to-Point** (PP)
- **S_0 Internal Bus** for ISDN telephone connections

Note:

A **TME1 Module** can only use a **PP** connection.

To register all numbers in the system by pressing the Browse button (Basic Menu -> MSN -> Settings), remote operation mode must be PMP (Point-to-Multipoint).

To register only the system's number (Advanced Menu -> System Settings -> Language/ Country Settings) by pressing the Browse button (Basic Menu -> MSN -> Settings) the remote operation mode must be PP (Point-to-Point).

4.9.2 "Slot S_0" Tab

This setting specifies the operating mode for the S_0 module and the TME1 Module maximizing the system's port usage. This option is best for the HiPath 1190 due to its high port capacity. The goal is to obtain the greatest possible number of extensions/external lines allowed according to the following port detection rules:

- External line and extension (default): Each port will decrease the number of external line slots by 2 and extension slots by 1. The connection may be PP, PMP or S_0 Bus line
- External line only: Each port will decrease the number of external line slots by 2. The connection must be PP or PMP. If it has been previously configured as S_0 Bus line, the connection will be automatically reversed to PP (which is the default).
- Extension only: Each port will decrease the number of extension slots by 1. The connection must be a S_0 Bus line. If it has been previously configured as PP or PMP, the connection will be automatically reversed to S_0 Bus line.

"S0 Slot" Column

The **S_0** Slot column shows the slot to which the S_0 module or the TME1 module is connected and the logical number for the S_0 Port.

"Mode" Column

The **Mode** column shows the type of connection between digital lines.

- Extension
- External Line;
- Extension and External Line

4.9.3 "Advanced Configuration" Tab

In the **Advanced Settings** tab Support personnel can enter data related to digital lines based on information provided by the local carrier.

"Layer 1" Field

The **Layer 1** field allows you to change some of the default ISDN settings for specified countries.

"Layer 2" Field

The **Layer 2** field allows you to change some of the default ISDN settings for specified countries.

"Layer 3" Field

The **Layer 3** field allows you to change some of the default ISDN settings for specified countries.

"No SETUP ACK" Checkbox

The **No SETUP ACK** box is selected or unselected based on your local carrier information.

"Notify Send" Checkbox

The **Notify Send** box is selected or unselected based on your local carrier information.

"No DIV.LEG Info" checkbox

The **No DIV.LEG Info** checkbox allows you to choose, for a call forwarded to an external destination, whether the number shown on the telephone should be the MSN/DID or that of the original caller.

If this option is disabled and a local carrier provides the "Diversion" service for ISDN lines, the extension forwarding the external calls to an external line can show the original numbers of the participants to the calling parties.

Otherwise, only the number of the MSN/Attendant of the PABX will be made available.

In the default configuration, this option is enabled for the following countries: Australia, Greece and the Netherlands.

This feature only works in ISDN lines in PP or PMP mode and only with T-Reference Point.

"Call Operation" Field

The **Call Operation** field must specify whether the call is Symmetric or Asymmetric based on your local carrier information.

Note:

The settings for **No SETUP ACK** and **No NOTIFY** as well as the options for **Symmetric** and **Asymmetric** operation are set by default during installation. Since these settings affect the ISDN protocol over the public network (carrier-specific settings), they should only be modified by trained personnel.

"B Channel" Field

Channel B field must specify whether the channel is Executive or Secretary.

"Seizure Mode" Field

The **Seizure Mode** field must specify whether the call is Upstream or Downstream based on your local carrier information.

4.10 External Lines

In the **External lines** subfolder you can configure the characteristics of all of the system's external lines. There are three tabs:

- "General" tab
- "Line Group" Tab
- "Flexible Number" Tab

4.10.1 "General" tab

Note:

All the Ports of the installed boards are indicated in this guide.

The **Columns** show the current extension configuration status for each item available in the fields immediately below.

You can import/export the settings to other entries using the Copy and Paste functions.

Enter:

The settings as you want them in the appropriate fields in the order of the external lines.

"External Line" field

In the **External Lines** field you can select an external line to configure (this can also be done by selecting a sequence of external lines).

"Call Direction" field

In the **Call Direction** field you can configure how external lines can be accessed when making or receiving a call by selecting one of the following options:

- **Two-way;**
- **Incoming** or
- **Outgoing**.

Note:

This facility is usually contracted with the local carrier to ensure optimal usage of all lines available.

"Caller ID on an Analog Line" field

The **Caller ID on an Analog Line** field allows the HiPath 1100 system to receive information about a caller (number and/or name) by means of a signal sent by the local carrier (DTMF or FSK protocol). This information is displayed at the extensions enabled for Caller ID.

- **Disabled**
- **DTMF 1**
- **DTMF 2**
- **FSK**

Note:

The service specified in this setting must be made available by a **local carrier.**

When you configure settings for a specific country, the appropriate protocol is automatically selected.

The HiPath 1190 has a maximum limit of 16 lines configured with the CLIP DTMF option, which leads to limitations in the Conference feature depending on the number of lines being used by the CLIP DTMF at any one time. This is because both the CLIP DTMF and the conference use common system resources. Thus we have, for example:

- In a system with 16 CLIP DTMF lines, there can be 2 conferences with 3 participants;
- In a system with 8 CLIP DTMF lines, there can be 1 conference with 8 participants or 2 conferences with 4 participants;
- In a system with no CLIP DTMF lines, there can be 2 conferences with 8 participants.

To release additional ports for use in the Conference feature without depending on the use of the CLIP DTMF, this function should be disabled for some lines.

"DISA Line" field

The **DISA Line** field allows you to make an external call from an external telephone (as if it was an extension) through your system.

- **Never** specifies no DISA answering.
- **Night Only**
- **Day Only**
- **Always**

Note:

Only one external call can be made or one feature can be used at a time.

After successful activation of a feature, the call is immediately terminated. In the case of a call, it is terminated right after a caller hangs up.

When there is a DISA call in progress, a second call to a DISA external line or one with a DISA answering mode is treated as a regular call. If a call is received over an external line configured as a Fax/DID and DISA, the call is answered by the DISA facility.

When a digital line is used for the DISA feature, its MSN number ("MSN DISA" - Code 019) is always active for answering DISA.

"Dialing Mode" field

The **Dialing Mode** field is only available for analog lines with a configurable dialing mode that is to be selected by using one of the following options:

- **Pulse**(Dial Pulse mode)
- **Tone** (Dual-Tone Multifrequency mode)

"Protocol" field

The **Protocol** field specifies the protocol to be used by the system for seizing an external analog line, based on the local carrier's information.

- **Ground Start (default for Canada)**.
- **Loop Start (default for other countries)**

"Line Present" checkbox

The **Line Present** checkbox indicates when there is an external line connected to the system. This checkbox (no external line connected) should remain cleared unless all of the system's external access lines are going to be used.

Note:

For an external digital line, two interfaces are disabled when this checkbox is not selected.

"Dial Tone Detection" checkbox

When the **Dial tone detection** checkbox is selected, the system runs two functions on an external analog line:

1. This setting has the system wait for a dial tone detection on the public exchange before freeing it up for sending the selected number. If there is no dial tone on the line (for example, line not installed) the system automatically blocks this line.
   With MF telephones, the number dialed will be sent to the external line approximately 4 to 5 seconds after the last digit was dialed (1A dialing).
2. It detects closure of an in coming call using the busy tone (busy tone detection) in the following cases:
   - External call forwarding;
   - External transfer;
   - Incoming for Fax/DID;
   - Incoming for answering machine;
   - Incoming for EVM module;
   - Incoming for VMI.

"Next" button

Use the **Next** button to go to the next available external line.

"Answer Signal" Field

The **Answer Signal** field allows you to configure the type of signal that is received trough the local carrier over an external analog line.

The following types of signal are accepted:

- **None**;
- **Polarity Reversal**;
- **DTMF Tone**.

When the selected signal type is DTMF, a field for selecting a DTMF tone will be available: **A** (default), **B**, **C** and **D**.

Polarity Reversal and DTMF Tone fields are available only when Protocol is specified as Loop Start.

4.10.2 "Line Group" Tab

Programming allows access to an external line or group of external lines through a code other than "0." For example, 890 to 899

Note:

This tab displays all **connected** external lines.

The **Columns** show the current extension configuration status for each item available in the fields immediately below.

You can import/export the settings to other items using the Copy and Paste functions.

"External Lines" Field"

The **External Lines** that are part of a **Group of External Lines** in the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field". Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"Groups" Column

The **Groups** column shows the groups that can be configured.

"Line Code" Column

The **Line Code** column shows the codes used to access each group. You can change these codes, if necessary.

"Connection Type" Field

The **Type of Connection** field feature specifies whether an external analog line connected to a HiPath 1100 system is also connected to a local carrier or another PABX:

- **Direct** (Connection to a local carrier)
- **Via Satellite PABX (connection to a different PABX system)**.

"Overflow Group" Field

The **Overflow Group** field allows you to associate a group of **external lines** to an overflow group of external lines.

- **Off**, there is no **there is no Overflow for a Group of External Lines** for the **selected group**
- **Any group (e.g., 0, 890, 891, etc...)** - when all configured external lines are unavailable for the group, an external line from the group configured as **Overflow for a Group of External Lines** will be used

- **All**, when all configured external lines are unavailable for the group, an external line from any group configured for the same **Connection Type** (Direct/Sub-PABX) will be used.

"Fallback Time" column

The **Fallback Time** column allows you to activate/deactivate the time so that the call can be made using the default carrier if the carrier configured in rule **LCR** is not available (see **"Fallback Time" field**).

"Group Lines" Column

The **Group Lines** column displays the lines assigned to a Group.

4.10.3 "Flexible Number" Tab

In the **Flexible Number** tab you can change the default internal numbers required for accessing an external line.

Note:

You can enter up to five digits.

This tab displays all **connected** external lines.

The **columns** display the current number of external lines.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

A new external line number in the **External Line** column.

"External Line" Column

The **External Line** column displays the logical slot of an external line in the system.

"External Line Number" Column

In the **External Line Number** column select a line to be configured and enter the new number.

4.11 LCR

LCR (Least Cost Routing) is designed to lower telephone communications costs. When LCR is enabled, all outgoing calls are routed to provide the least expensive connection costs. A table listing all times of the day, days of the week and telephone service providers is created so that calls can be made when rates are at their lowest. After programming, you can make calls with no need to enter the carrier code since LCR automatically uses the carrier that provides the lowest rate at the time the call is being placed.

Note:

When using LCR, you must specify all area codes that should **not** be dialed using your default carrier. All other codes, which may be dialed using the **default carrier** may not be included. The area codes configured will be used as an exclusion criterion for occupying the line directly (if it is not registered in LCR). It is recommended that you create a dedicated field (Tab) by destination category (mobile, long distance, international). A new field (Tab) **must** be created when the destination categories have different call charge structures or when there are differences within the same category).

It is possible to connect GSM/SIP Boxes to the HiPath 1100 using the S_0 module where the ISDN lines must be set in a line group according to the carrier type: GSM or SIP. The GSM Boxes work as if the call were sent from a GSM cell phone and the SIP Boxes work as if the call were made using a PC. Thus the call can be sent by the cheapest route according to the analysis of the destination of the call using the rule configured in the LCR.

"Tab Configuration" field

The **Tab Configuration** field defines a default carrier for each tab. If it is not possible to make the call using the carrier set in the time periods table of the rule, the carrier set as default will make the call.

"Default carrier" field

In the **Default carrier** field, select a carrier that has been configured for LCR when no external line is available. To warn the user that a different carrier is being used select the **Warning tone** check box. The warning tone is audible on standard telephones. For system telephones, the name of the carrier appears on the display.

"Apply to all regions" button

The **Apply to all regions** button sets all the tabs with the default carrier of the current tab.

"Create tab" button

The **Create tab** button creates a new LCR tab. When that button is selected, a popup window will open to define the name of the new tab (for example, cellular, National or International).

"Delete tab" button

The **Delete tab** button deletes the current tab. When that button is selected, a warning message will appear informing the user that if the tab is removed, all the destinations and rules will also be deleted.

"Time Interval Configuration" field

Use the **Time Interval Configuration** field to select a time interval according to the desired carrier. To do this, choose an existing carrier *(***Carrier** field) then define the time interval.

The time interval may also be defined manually by clicking and holding down the left mouse button in the "Day of the Week" field (then down the time columns) at the starting time and dragging down to the desired time.

Enter:

- The list of carriers, with carrier names, area codes and prefixes, to be included in every tab.
- The time interval display comprises three lines for: **Weekdays**, **Saturday** and **Sunday/Holidays**. Above these lines is a time scale in hours (intervals can be set with a resolution of 15 minutes).
- To delete a time interval, click the **Delete Time Interval** button and select the desired time interval with .
- Tab fields can be created or deleted using the **Create New Tab** and **Delete Tab** buttons.

"Define time interval" field

The **Define time interval** *f*ield allows you to insert or remove a time interval according to the day of the week.

Use the **Start time** and **End time** selection fields to define the time interval desired. In the **Day** field, select the desired day and use the **Add time interval** or **Remove time interval** buttons to assign or remove the interval for the chosen day. The time interval is indicated in the respective predefined carrier color.

Note:

The time resolution for displaying time intervals is 15 minutes. You can specify a maximum of 8 areas (tabs), 15 carriers, 100 destinations (destinations for all tabs) and 21 time intervals (for all fields).

"Remove time interval" button

Use the **Remove time interval** button to delete a previously defined time interval.

The interval can be deleted manually by selecting the button with the mouse and clicking over the desired interval with , which will appear in the strip when you press the button, or using the **Define time interval** field.

"Add time interval" button

Use the **Add time interval** button to add a time interval for the time interval defined in the **Define time interval** field and the carrier selected in the **Carrier** column.

Example for LCR settings on a local network

This example shows the destination categories divided into:

Creating a "National" tab

- Select **Create new tab**. Enter a name for the new tab, for example, **National**.
- Add the carrier(s) to the existing list for long national calls.
- Enter all area codes or partial area codes to cover all numbers for national calls within the country.
- Finally, enter the time intervals in the **Time interval table**.
  With time intervals left "empty", the line of the default carrier will be occupied immediately.
- Select the line group on which calls will be made and the overflow line group to be used when the line group is busy.

At present, you can specify up to 100 destinations for all the tabs.

"Destination" column

Use the **Destination** column to define the call destinations. The maximum number of destinations that can be configured is 100.

"Code" column

Use the **Code** column to define the area codes corresponding to the destinations set.

"Type" column

Use the **Type** column o set whether the destination is **Local**, **National** or **International**.

"Carrier" column

The **Carrier** column is used to insert the cheap carriers and their area codes in the **Number** column. This table is the same for all Tab fields. All fields can be edited. The maximum number of carriers is 15.

"Number" column

The **Number** column is used to insert up to 16 digits. Also in this field, if an external analog line is used, you can insert a pause between the digits using the character "P". Each "P" character inserts a 2-second pause in the connection. You can insert long pauses by using more than one character (e.g., for a 10-second pause, use "PPPPP" between the digits). The "P" character has no effect on calls over digital lines.

Two **Number** fields can be configured with the same number if the **Line Group** fields are different. The opposite is also true.

"Line group" column

In the **Line group** column, select the Line group that you wish to associate to the carrier.

Note:

If the user makes a call using routes subject to delays of problems making call connections (for example, SIP Boxes), the call will be made using the external lines set in the default carrier after LCR fallback time has expired.

Activating the Fallback Time should be done for each Group of external lines (see **"Fallback Time" field**), when the **Fallback Time** is configured for the whole system (see **"Fallback Time" column**).

Two **Number** fields can be configured with the same number if the **Line group** fields are different. The opposite is also true.

"Line group overflow" column

In the **Line group overflow** column, select the group of overflow lines that you wish to access if he first line group associated the carrier is busy.

"Import LCR archive" button

Use the **Import LCR archive** button to import an LCR archive from a site providing this service in the .xml-type format. One possible site is www.telefonsparbuch.de.

If a particular carrier is configured, when you import an LCR archive a message box will be displayed asking whether the rules (Carrier, Number, Line group and Line group overflow) should be kept or deleted. If you choose to keep them, the configuration of these rules will be kept. If not, the configuration of the imported file will overwrite the existing settings.

External lines settings can be included in the LCR archive. If the line is being used for Internet access or the SIP/GSM trunk is being used in parallel, the user can configure the trunks manually after importing the file.

If the user attempts to open a file that is not **.xml**, a message box will appear informing that the format of the file is invalid.
The rules can be imported by the Manager in offline mode.

"Export LCR archive"

Use the **Export LCR archive** button to export an LCR security file with the rules configured.

If one of the area codes registered in the System is dialed from an extension after you have set the LCR options, the call to be established (for example, 41 + destination number for a national call) according to the conditions defined (Calendar and Carrier), and the definitions dialed in the subfolder **System Settings** - **"Regional Settings" Tab** (**Structure of the number** field) will be completed, or changed (for example, in Brazil 021 41 + destination number) and charged according to the new definitions set.

4.12 ACS

In the **ACS** subfolder you can configure a plan for an alternative carrier selection.

ACS does not affect Emergency Numbers if the user dials directly.

Setting "Conversion Rules"

You must specify the rule name (**Rule Name** column) and the group of external lines (destination/route) (column: **Destination**).

"Selected Number" Column

In the **Selected Number** column enter the number to be converted.

"Alternate Number" Column

In the Alternate Number **column enter the** number to replace the **Selected Number**.

"Alternate Number" Column

In the **Alternate Destination** column select a Group of External Lines for replacing the **Destination** as soon as the **Selected Number** is replaced with an **Alternate Number**. When the **Alternate Destination** column field is disabled, the group of external lines (destination/route) in the **Destination** field will be used.

"Overflow Destination" Column

In the Overflow Destination column **select** the **Group of External Lines (destination/ route) to be used in place of the Alternate Destination** or the **Destination** in case the line that is being used is unavailable at the moment of the connection.

"Alternate Overflow Number" Column

In the **Alternate Overflow Numbe**r column enter the number to replace the **Alternate Number** in case the **Overflow Destination** is used.

Note:

The **Alternate Overflow Number** column must be completed.

"Name of period"

In the **Name of period** column select the name of the period when the conversion should be made. If nothing is selected, the conversion will be made when the number is dialed.

If you want to convert a number that is followed by other numbers, use the "x" character to indicate each digit ("x" is a number from 0 to 9).

Avoid using ambiguous rules such as "04X" and 041.
However, if you use such a rule, it will have a lower priority.

If you want to insert an inter-digit pause, enter a "P" character in the Selected Number **column, the Alternate Number** column or the **Alternate Overflow Number** column. Each "P" character inserts a 2-second pause in the connection. You can insert long pauses by using more than one character (e.g., for a 10-second pause, use "PPPPP" between the digits).

You can use the "P#" character only once in the **Alternate Number** or **Alternate Overflow Number** column to insert a 2-second pause and to dial via MF (on analog lines) or in-band (on ISDN lines. Other characters ("#" and/or "*") may be added after "P#".

Once ACS options are configured, if a number from the **Selected Number** column is dialed by the external line selected in the **External Line** column, and if it uses any conversion rule entered in the system, the number will be replaced with the one in the **Alternate Number**-column. The external line will be replaced with the one in **Alternate External Line**. If the external line in the Alternate External Line column is unavailable, it will be replaced with the external line in the Overflow External Line column. When a group of external lines (destination/route) in the **Alternate Destination** is not available, it will be replaced with the **Alternate Destination** entered in the **Overflow Destination** column.

Configuring the "Name of Period" field

On the right field, in the **Name of Period** column, you can specify the name of the period in which to make the conversion. For each conversion rule you must select a specific period. A period can be used for more than one rule.

Create Time Interval Table"

The Period to be used is entered in a Time Interval Table tab. To enter the name of the period into the table select from a list of existing carrier (bottom right table) Select Start Time and End Time by clicking on the **Time Interval Table** column or select the day in the **Set Time Interval (without clicking)** field. In the fields **Start Time** and **End Time**, set the time interval and click the **Add a Time Interval** button to assign a time interval to weekday being configured. The time interval is color coded to the Period. The period colors are preset.

Note:

The time resolution for displaying time intervals is 15 minutes. You can specify a maximum of 21 names of periods, 121 conversion rules, and 21 time intervals (for all fields).

Enter:

The Name of Periods list, in which periods and conversion rules are specified.

The time interval display comprises three lines for: **Weekdays**, **Saturday** and **Sunday/Holidays**. Above these lines is a time scale in hours (intervals can be set with a resolution of 15 minutes).

To delete a time interval, click the **Delete Time Interval** button and select the desired time interval with .

Example for ACS settings on a local network

This example shows how the conversion process occurs:

Create a new code

- Select the **Code Name** column and specify a name for a code, for example **Single Carrier**.
- Enter the **Name(s) of Period(s)** to be used to substitute the Single Carrier code numbers.
- Complete all the *fields* required for the Single Carrier code.

The conversion rules slot numbers are automatically generated once the conversion rule is set.

- Finally, enter the time intervals in the **Time Interval Table**.
  In the case of time intervals that are blank, the conversion will be done according to the codes configured in the system.

Currently you can configure a maximum of 40 conversion rules.

4.13 System Settings

The System Settings subfolder includes the following tabs:

- "General" Tab
- "Caller List" Tab
- "Music On Hold" Tab
- "Overflow Extension" Tab
- "Attendant" Tab
- "Call Charges" Tab
- "Regional Settings" Tab
- "Feature Codes" Tab
- "Date and Time" Tab
- "Emergency Numbers" Tab
- "Software Update" Tab
- "Remote Administration" Tab
- "Modem" Tab
- "Passwords" Tab
- "Tickets" Tab
- "Message" Tab
- "Holiday" Tab
- "Virtual port" tab

4.13.1 "General" Tab

Use the **General** tab to specify common PABX settings.

Note:

The **Fields** display the current status of the system settings for each available item.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The settings of your choice in the appropriate fields, for each extension.

"Company Name" Input Field

In the **Company Name** field enter your company name (up to 10 characters).

"DISA MSN" Field

In the **DISA MSN** field specify whether the DISA feature should be used for the HiPath 1100 system. If the feature is to be used, specify the appropriate MSN to execute it. You may specify which extensions are authorized to access HiPath 1100system functions when dialing from an external system with DTMF (DISA Permission). This setting is specified in the **"General" Tab** in the **Advanced/Extensions** subfolder. You must also specify a password for the Electronic Lock used for the extension (the default password is 00000) (see User's Manual - Electronic Lock).

The list of options for this field shows only MSN numbers that are not associated to an extension or to a local MSN for remote administration.

"No Answer Timeout" Field

Use the **No Answer Timeout** field to specify a timeout for the **First Attendant** to answer an external call. In there is no answer after the timeout expires, the call is forwarded to the **Second Attendant**.

"Local Administration Port" Field

Use the **Local Administration Port** field to specify an ISDN port for Local Administration. The entry for this field must be copied to the **Connection Type➔ ISDN Connection ➔ Phone # field** under Properties in **CommServer** when ISDN Connection has been selected.

"MWI Server" Field

In the **MWI Server** field enter the MSN that is externally dialed when there are messages waiting (this feature must be provided by the Carrier).

"Second External Access Code" Field

The **Second External** Access Code field specifies the code to be sent by the Satellite PABX in accordance with the access code for external lines on the Master PABX. This code is used to check if there is a dial tone at an external line and to generate a pause while dialing, redialing or using the speed dialing feature. The default setting for the second code is "0". The maximum is "99".

If no value is entered, the line dial tone will not be checked.

"Pilot MSN" Field

In the **Pilot MSN** field enter the MSN that is externally dialed when there is a message without MSN ID. The call will follow the **Pilot MSN** configured.

"Conditional call forwarding limit per extension" field

In the **Conditional call forwarding limit per extension** *field* enter the number of digits that can be programmed for extensions with permission (default is 5).

Conditional Call Forwarding Limited by Extension can be configured using a CTI interface.

- The system's maximum number for Call Forwarding is 50.
- Conditional Call Forwarding has priority over an unconditional Call Forwarding.
- Conditional Call Forwarding is not available for S_0 extensions.

Functions: The extension has permission for Conditional Call Forwarding and the system is connected to a PC running a TAPI application.

1. Conditional Call Forwarding rules and conditions for a specified extension can be defined by using a Windows TAPI application
2. Apply the settings to the extension desired.
3. From this moment on the extension will be forwarded.

"Interdigit Pause Time" Field

The **Interdigit Pause Time** field allows you to configure the duration of the pause tone. The pause may vary from 1 to 5 seconds (default is 2 seconds).

See also **Setting "Conversion Rules"**.

"Fallback Time" field

The **Fallback Time** field allows you to configure the time for activating of the LCR fallback for the required groups of lines (see **"Fallback Time" column**). As soon as this time expires, the call will be routed to the Default carrier defined in the LCR rule.

"External Line Type Selection" Field

Use the **Seizure Priority by Type of External Line** field to specify the type of line to have priority access.

- **All types of lines** - In this case seizure is sequential and cyclic.

- **Digital** lines are seized as first option.
- **Analog** line are seized as first option.

"Temporary MSN" Field

In the **Temporary MSN** field the user can select a temporary MSN from the list (Basic/**MSN** Settings) for making an external call or use the Key Assignment feature (see **"Key Assignment" Tab**) to assign a key to an MSN for monitoring incoming and outgoing calls.

- **Enter Index** using the information provided in the **Index** column, for example: 001, 002, etc.
- **Enter MSN** using the information provided in the **MSN** column, for example: 3415000, etc.

"Cascaded Call Forwarding Partner"

The **Cascaded Call Forwarding Partner** field allows you to choose how the call forwarding partner will be displayed on the telephone display in a call forwarding cascade. (See Programming Manual - A31003-K1270-U100-*-*, chapter on Cascade call forwarding).

In the following situation: Number 1 is set to forward to Number 2 and Number 2 is set to forward to Number 3. Here, the display can be configured as follows:

- **Last**: The caller display will indicate: "forwarded to: Number 3" and destination 3 display will indicate: "from: destination 1.
- **First**: The caller display will indicate: "forwarded to: Number 2" and destination 3 display will indicate: "from: destination 2".

If Number 3 is a VMI:

- Last: The message is stored in Number 1's mailbox. If Number 1 does not have a mailbox, the Voice Mail must request the port for recording the message
- First: The message is stored in Number 2's Mailbox.

"Carrier Selection" field

The **Carrier Selection** field allows you to select the operating mode that best fits your needs (**LCR** or **ACS**).

- **LCR** - to make an external call using the carrier that offers the lowest rates.
- **ACS** - to define conversion rules for numbers dialed by the user, such as using always the same carrier regardless of which carrier is dialed.

"Automatic Keypad" Checkbox

Only for countries with keypad dialing.

When the **Automatic Keypad** checkbox is selected, the systemHiPath 1100 allows activating the ISDN function on the telephone without requiring an external access code (see the user's manual for the telephone being used).

In some countries you can call up the carrier's ISDN functions by dialing a code. Your local carrier can inform you which ISDN features can be controlled by Code in your Country.

"Speed Dialing without COS Check" Checkbox

When the **Speed Dialing without COS Check checkbox is** selected all number stored in the System Speed Dialing subfolder in the **Basic** folder can be speed-dialed from extensions with No Permission. This means the existing settings (Class of Service) in the Class of Service (COS) folder are not taken into account for using the entries in System Speed Dialing.

"False Tone" Checkbox

When the **False Tone checkbox is** selected, an external line dial tone is generated even when there is no external line available.

If LCR or Emergency Numbers are configured, the user will hear a False Tone.

"Serial Printing" Checkbox

When the **Serial Printing** checkbox is selected Call Charge information is available through the system's serial interface.

"Call Forwarding Signal (Call Groups)" Checkbox

When the **Call Forwarding Signal (Call Groups)** checkbox is selected, the extension (belonging to the Call Group) configured for Call Forwarding can be forwarded. When a call is routed to a Call Group, it rings at all extensions at the same time. The extension configured for Call Forwarding will ring at its destination. If the call is answered, the other extensions in the group stop ringing. Otherwise, the call rings again until one of them answers it.

Do not use external Call Forwarding for an extension belonging to a group when "Call Deflection" (see page 123 is activated (Code 228). In this case the system does not receive any information about the forwarded call having been answered or not. Since the system does not have this information it continues to signal all other group members.

"Call Forwarding Signal (Hunt Groups)" Checkbox

When the **Call Forwarding Signal (Hunt Groups)** checkbox is selected, the extension (belonging to the Hunt Group) configured for Call Forwarding can be forwarded. When a call is routed to a Hunt Group, it rings at every extension in the manner configured (linear or round-robin). When it rings at the extension configured for Call Forwarding it will be forwarded to the extension's destination. If the call is answered, the other extensions in the group stop ringing. Otherwise, the call rings again at the other extensions that belong to the Hunt Group, as configured.

Do not use external Call Forwarding for an extension belonging to a group when "Call Deflection" (see page 123) is activated (Code 228). In this case the system does not receive any information about the forwarded call having been answered or not. Since the system does not have this information it continues to signal all other group members.

"Direct transfer to the busy extension" checkbox

When the **Transfer to a busy extension** checkbox is selected, the call can be forwarded to a busy extension. A warning tone can be heard on the background at the extension that receives the transfer, meaning that there is a call waiting.

Note:

After a specified time or when a receiving extension is configured for Do Not Disturb or Urgent Call service, the call will ring at the extension that made the transfer.

"Call Deflection" Checkbox

When **Call Deflection** *checkbox* is selected an incoming call to a destination extension enabled with Call Forwarding (*11) is forwarded directly to an external destination through the public network or the HiPath 1100 system.

Note:

This feature must be enabled by a local carrier.

"View Name/Call Number" Field

Select the desired option from the **Display call name/number** field:

- **Name and number**
- **Name (if available)**
- **Number**.

If the Name and number option is selected, the **Display called number (MSN)** field will not be enabled.

"Display called number" (MSN) field

Select the desired option from the **Display called number (MSN)** *field*:

- **None** - nothing is displayed
- **Name (if available)** - displays the name that was called
- **Number** - displays the number that was called

To enable that field, the Name and Number options should not be enabled in the Display call Name/Number *field* **.**

"Voice Mail" Field

Use the **Voice Mail** field to specify the type of Voice Mail to be used by the system and the UCD Group that will function as interface for the Mail Voice Server equipment.

"Type" Input Field

- **None** - no voice mail will be used
- **EVM** - Entry Voice Mail - EVM voice mail will be used
- **VMIe** - a voice mail equipment associated to the system's equipment will be used

Internal Voice Mail Server

An internal Voice Mail server works with a UCD Subscriber Group that is configured during the programming process. This is known as a VMIe Group Interface.

The configuration of a UCD Subscriber Group for the VMIe Group Interface must fulfill these requirements:

- It must not be programmed as a DID for an external line
- It must not be configured for Overflow.
- The Agent's auto-notes time interval must be set to at least 5 seconds.
- Queue size must be set at the maximum allowed (default)

"Group" Input Field

Use the **Group** field to specify a UCD Group to function as an interface for the Voice Mail Server equipment.

If the EVM group is changed and the old group is configured as the second attendant, that group should be removed manually from the second attendant list and the new group inserted in the list.

"External-to-External Connections" Input Field

The **External-to-External** *input field* allows you to specify a timeout between two external calls when no other extension is involved in the call.

The user hears a warning tone before the timeout expires. The waring tone is sent 10 seconds before the end of the timeout. When the call is between two external lines with no internal extension involved, the call is terminated once the timeout elapses.

"Timeout On" Checkbox

The **Timeout On** checkbox enables a timeout for an external-to-external call. This means that the duration of the call can be configured. The user hears a warning tone before the timeout expires. The warning tone is sent 10 seconds before the end of the timeout.

"Time" Field

The **Time** field allows you to set the duration for an external-to-external call. The maximum time is 23:59:55 and the default time is 1 hour.

"External door extension" field

Use the **External entrance telephone** field to configure the system with the information required to control up to 4 of External entrance telephone devices used.

"Open door DTMF sequence" field

In the **Open door DTMF sequence** field, set the DTMF code for the door opener.

"Release call DTMF sequence" field

In the **Release call DTMF sequence** field, set the DTMF code to indicate the end of the call.

"Answer call DTMF sequence" field

In the **Answer call DTMF sequence** field, set the DTMF code to answer calls from the entrance telephone device.

The sequence of the DTMF codes sent to all the devices installed is the same for all and should be configured according to the manual provided by the entrance telephone manufacturer.
Once you have set the DTMF codes and the type of extension in the Advanced configuration/Extensions/"General" tab/ **"Type" field** the devices connected to the respective slots will work normally as entrance telephone devices.

4.13.2 "Caller List" Tab

Use the **Caller List** tab configure a Caller List for a PABX.

Note:

The **Fields** display the current status of the system settings for each available item.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The settings of your choice in the appropriate fields.

"Caller List Type" Field

In the **Caller List Type** field you can specify the displaying of external calls only or all internal and external calls. To configure these settings select from the options:

- **External** or
- **External and Internal**.

"Suppress Digits in Caller List" Field

In the **Suppress Digits in Caller List** field you can specify the digits that should not be dialed when using the Caller List.

For example,

The following number is stored in the Caller List: 0893415000. The digits specified for suppression are 089 (area code). The system dials only the number 3415000. The code 089 is not dialed.

4.13.3 "Music On Hold" Tab

In the **Music On Hold** tab you can configure music to be played for calls placed on hold by the PABX.

Note:

Enter extensions for two MOH groups or do not make any assignments.

The **Fields** display the current status of the system settings for each available item.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The settings of your choice in the appropriate fields.

"Music On Hold" Field

In the **Music On Hold** field you assign music to be played for external calls that are placed on hold. The music is played from an external music source.

- **No Music** - No music is played for calls on hold
- **Internal** - The music played comes from the system software. The music source can be changed using the HiPath 1100 software (see **MOH Transfer**).
- **Internal PCM** - The caller hears music that was recorded in a PCM-type system.
- **External - optional slot** - The caller hears music from an external music source (for example a radio) linked directly to the system's external music input.
- **External - extension** - The caller hears music from an external source (for example: a radio) connected to an extension (A/B pair). The extension to which the source is connected must be selected from the list below.

4.13.4 "Overflow Extension" Tab

Use the **Overflow Extension** tab to configure an overflow/escape extension for the PABX.

Note:

Select the extensions from the lists or do not make any assignments.

The **Fields** display the current status of the system settings for each available item.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The settings of your choice in the appropriate fields.

"Overflow Extension" Field

Use the **Overflow Extension** field to specify the destination of calls when the extension called is unavailable. Select an extension for each of the following options:

- **Incorrect Number**,
- **Busy** and
- **No Answer**.

Call Forwarding for **Wrong Number**, **Busy** and/or **No Answer** can be disabled by selecting **OFF** in the appropriate lists.

4.13.5 "Attendant" Tab

You can configure a PABX Attendant Console for the HiPath 1100. This is useful for streamlining the flow of calls to up to two Attendant Consoles equipped with System Telephones with a display.

Note:

Extensions assigned for working as Attendant Console can be selected from extension lists or remain unassigned.

The **Fields** display the current status of the system settings for each available item.

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The settings of your choice in the appropriate fields.

"Attendant Console" Column

The **Attendant Console** column displays the logical slots for the **Attendant Console.**

"Extension" Column

In the **Extension** field you can assign an **Attendant Console** slot to an extension. A System Telephone then is connected to the extension selected.

An **Attendant Console** cannot receive "Direct Message to Speaker" nor belong to an Associated Group.

4.13.6 "Call Charges" Tab

To show call charges in currency units you must specify a **Call Charge Factor**. Pulses are multiplied by this factor. A **Call Charge Unit** consists of a pulse sent over a line by a public exchange to provide and display call charge information according to the type of call (area code, international, etc.) and other criteria determined by the carrier.

Note:

The Call Charges displayed and the Call Charges actually billed may, however, be different from the **Preset Charge Factor** (**Factor 1** or **Factor 2**) or **Multiplier**, depending on the billing method used by the carrier. For example, in the following cases:

- Special discounts for connections longer than 10 minutes
- Carrier does not charge for special services

Enter:

A **value** for the **Call Charge Unit** and the **Call Charge Factor**.

"Call Charge Unit" Field

In the **Call Charge Unit** field enter a value (up to 6 digits) to be multiplied by **Factor 1** or **Factor 2**.

"Factor 1" Field

In the **Factor 1** field enter a value to be used as a multiplier for the **Call Charge Unit**. This field may specify a standard rate.

"Factor 2" Field

In the **Factor 2** field enter a value to be used as a multiplier for the **Call Charge Unit**. This field may specify a different rate.

4.13.7 "Regional Settings" Tab

The following settings can be configured in this *tab*:

"Prefix" Field

The following information is specified in the **Prefix** input field:

- **Local Area Code** consisting of the local prefix (for example, 415 for San Francisco)
- **Country Code** consisting of the country prefix (for example, 55 for Brazil)
- **National Prefix** consisting of an access code for the public network (for example, 0 for Brazil)

- **International Prefix** consisting of a prefix for other countries (for example, 00 for Germany)

"Country Setting" Field

In the **Country Setting** field you specify the parameters for the countries in the HiPath 1100 system:

- **Country**

  Once a Country is specified, you can configure country-specific parameters (for example, tones, time, currency unit, etc.) for the system, if these have not been configured during HiPath 1100 system setup.

> ⚠ Once a country is selected, the HiPath 1100 system restarts. While this occurs, all calls/connections are disabled. The HiPath 1100 Manager then must be reconnected to the system.

> ⓘ Country settings can also be configured at the Programming Extensions by using the service code *953199465 and entering the appropriate country code (see Programming Manual).

- **Language**

  Once a language is selected, the text displayed on System Telephones appears in that language.

  Portuguese, **Spanish**, **English**, **French, Italian, Turkish** and **Custom.**

> ⓘ Select the **Custom** option for using TTT (Telephone Text Translator) software for translating text displayed by the system to a specific language. The selected language is displayed in the **Custom Language** field.

- **Currency Unit Field**

  A currency unit must be selected for enabling the HiPath 1100system to correctly calculate call charges. This parameter is not automatically set when the country is selected from the **Country** drop down list.

"LCR Numbering Plan" Field

In the **LCR Numbering Plan** field you can enter numerical sequences for each country, consisting of the digits that must be dialed for making a call. The specified sequence is used by the LCR feature.

- **Prefix + Carrier Code + Destination Code**;
- **Carrier Code + Prefix + Destination Code**;

- **Prefix + Destination Code + Carrier Code.**

"System Number" Field

Use the **System Number** field to specify a system identification number for the carrier.

In order to have the **System Number** automatically entered you must press the Browse button in the Basic -> MSN -> Settings folder and also configure the remote operation mode as (Point-to-Point).

Note:

The service must be contracted to a carrier in order for that carrier to identify the system by its number.

"Type of Number" Field

Use the **Number Type** field to specify how the system's MSN configuration should be sent to the carrier.

- **Unknown**
- **System number**
- **Local Area Code**
- **Country Code**.

"Internal access code for automatic seizure" field

The *Internal access code for automatic seizure* **field** allows any telephone configured for **Automatic seizure of an external line** to make internal calls by dialing the number specified in this *field* followed by an extension number.

4.13.8 "Feature Codes" Tab

The **Feature Codes** tab displays the codes assigned to specific features of the HiPath 1100 system. These codes are used by the extensions to activate features using the keypad or service menu (when using System Telephones with a display).

.Note:

Feature Codes can be selected from code list and can be changed.

The **Fields** display the current status of the system settings for each feature code.

For an overview of Feature Codes, refer to the **Feature Codes List**.

Enter:

The settings of your choice in the appropriate fields.

"Feature Name" Column

The **Feature Name** column displays the names of the features available to the extensions.

"Default Code" Column

The **Default Code** column displays the standard access codes of the features available to the extensions.

"Current Code" Column

The **Current Code** column displays the current feature access codes. To change a **Service Codes**, edit the appropriate field in this column.

"Substitution" Field

In the **Substitution field you can change substitute codes for "*" and"#"** for entering a service code **by using a pulse-dialing telephone** (default for * = 75 and for # = 76)**.**

"Activation after Timeout" Field

In the **Activation after Timeout** field you can specify one of the two features, either **Urgent Call** or **Recall**, for automatic activation, after approximately 6 seconds, when an internal call from one extension to another gets a busy signal.

4.13.9 "Date and Time" Tab

In the **Date and Time** tab you can set the date and time for the system.

Note:

It is important to set the correct time/date for recording call details and displaying on System Telephones.

Enter:

Date and time by selecting the appropriate numbers in the calendar and clock.

"Automatic Update via Carrier" Checkbox

When the **Automatic Update via Carrier checkbox is** selected date and time are automatically synchronized during an external call through the local carrier.

The settings that are automatically updated are: Month, Day, Time and Minute. Year is not included in the FSK message settings - it is defined as the software's manufacturing date and can be manually adjusted.

4.13.10 "Emergency Numbers" Tab

In the **Emergency Numbers** tab you can enter up to five emergency telephone numbers. The default setting displays two emergency telephone numbers (for Brazil, for example, 190 for Police and 193 for Fire Department).

If one of these numbers is dialed and all external lines are busy, the first external call will be interrupted so it can be used for the emergency call.

Note:

Only an incoming call over an analog external line will not be disconnected.

Enter:

The settings of your choice in the appropriate fields.

"Slot" Column

The **Index** column displays all positions available for **Emergency Numbers**.

"Name" Column

The **Name** column displays the name of the emergency service available. Names assigned to **Emergency Numbers** can have up to 15 characters.

"Number" Column

The **Number** column displays the **Emergency Numbers** available. You can enter up to five emergency numbers with eight digits each.

The LCR rules configure may affect **Emergency Numbers**!
Example: If 041 is specified as an **Emergency Number** but is also the number entered under **Destination** Hamburg, in the LCR rules, as a local area code, when the number is dialed it will make a call to Hamburg.

Emergency calls never use external lines configured for:

- Internet access
- No external line is present
- External line configured for accepting only incoming calls

4.13.11 "Software Update" Tab

In this *tab* you can configure data for performing **Automatic Software Updates** through an **External Server**.

Note:

If an **External Server** number (Service MSN) was entered in the External Number field **External Number** input field (e.g., Service Center), but the **Execute Automatic Software Update** checkbox is not selected, an automatic software update can be performed by the first Programming Extension entering the service code *992 (see User's Manual - Remote Configuration).

Enter:

The required settings in the appropriate fields.

"External Number" Field

In the **External Number** field, enter the **External Server** number (Service Center, for example) to be used for updating the software (request the number from your Service Center).

"Execute Automatic Software Update" Checkbox

When the **Execute Automatic Software Update** checkbox is selected, a system software update is automatically performed in specified dates and times set in the fields described below.

"Settings" Field

In the **Settings** field enter the following information:

- **In the** Day field, specify the date for the start of the data transfer (download process).
- **Start Time** specifies the time the system should connect to the **External Server** (e.g., Service Center).
- The **Frequency (in months)** field specifies the time interval for transferring data (during the transfer the telephone operates as usual).
  For example, 01= 1 update per month (default) ... 12 = 1 update every 12 months, on the specified date
- The **Switch Time** field specifies the time for loading the transferred data into the system memoryHiPath 1100.
  During the upload (approximately 3 minutes) the telephone operates as usual.

For more information on updating the software see **Software Update**.

4.13.12 "Remote Administration" Tab

In this *tab* enter the external numbers and passwords required for connecting to an **External Server** (e.g., a Service Center) and enabling Remote Administration.

Note:

Remote Administration can be carried out remotely over digital lines or analog lines connected to a modem.

Enter:

The required settings in the appropriate fields.

"Remote Administration by DTMF codes" Checkbox

When the **Remote Administration using DTMF Code** checkbox is selected, the HiPath 1100 system Remote Administration using DTMF telephones is enabled.

"Remote Administration" Checkbox

When the **Remote Administration** checkbox is selected, the HiPath 1100 system can be managed remotely.

"Authorized External Numbers" Field

In the **Authorized External Numbers** field enter the following information:

- When the **Without Number Verification** checkbox is selected, the field **Without MSN Verification** is enabled to allow Remote Administration for all incoming calls originated by a remote HiPath 1100 Manager that provides the correct **Password** as set through the **Password** button in the Without Number Verification. When the **Without Number Verification** checkbox is clear, you must enter Authorized External MSNs in order to connect the remote HiPath 1100 to the PABX.

In the event that the user updates the software with **Remote Administration** and **Without Number Verification** checkboxes selected, the password specified in the **Without Number Verification** field will be reset to 00000 once the update is completed. Once the update is completed a message will appear warning the user that the password has been reset to 00000.

When Remote Administration is carried out via an analog modem and the external line is not enabled for CLIP, the user must select this *box*.
If the external line is enabled for CLIP, the user can choose whether to select this *box* or not.
In both cases, one or more passwords must be configured. Any of the configured passwords will be accepted.
It is recommended that the Remote Administration password be different from the local password.

- In the fields **1** to **4** enter the external numbers (Service MSN that do not require access code 0) authorized to use **Remote Administration** (these numbers are provided by the **External Server**).
  The **Password** buttons open a new dialog window where you can assign or change a **Password** (up to 5 digits) for **Remote Administration** of the specific external MSN number (Service MSN).

"Local MSN for Remote Administration" Field

When there is an incoming call for **Remote Administration,** the number entered in the **Local MSN for Remote Administration** field is compared to the numbers in the **External Numbers** field. If it matches one of these **external numbers** and the **password** supplied corresponds to the password entered in the dialogue window, the connection is set up.

The HiPath 1100 system only accepts Remote Administration via this Remote MSN.

For more information on **Remote Administration** and related options see Capítulo 9, "Remote Administration".

"Remote Operation Type" Field

In the **Remote Operating Mode** field enter the mode of operation for performing **Remote Administration**.

- **ISDN** is selected when using a digital line.
- **Analog Modem** is selected when using a modem connected to the HiPath 1100serial input and to an **Extension** slot.

4.13.13 "Modem" Tab

Use this *tab* to enter the settings for the modem to be used. Information about the modem can be found in the modem's manual.

If you use the Trendnet v.92 56K - TFM-560X or D-Link v.90 56K - DFM - 560EL modem, you must use the adapter cable for analog modem (see Service manual - Adapter cable for analog modem) and set/check the start-up and reboot code of the modem connected to the switch using **HiPath 1100 Manager**.

If the modem is connected to the PC (remote modem), the modem cable should be used and the initialization code set using**CommServer**.

"Modem control" field

"Reset" field

The **Reset** field indicates the default values of the system:

- US-ROBOTICS: ATZH0
- TrendNet: ATZH0
- D-LINK: +++,,,ATHATZH0

"Start-up" field

In the **Start-up** field, the default setting for these modems is as follows:

- US-ROBOTICS: AT&F0&B1F1S0=0
- TrendNet: AT&F0&B1F1&D0S0=0.
- D-LINK: AT&F0&D0S0=0

4.13.14 "Passwords" Tab

This *tab* is used to configure system passwords for protection against unauthorized use, configuration changes or Consultation.

Note:

The **Programming Password** required for first accessing the HiPath 1100Manager and the **Night Service Activation Password** are both "**31994**" .

The password must consist of **five** digits.

Enter:

The settings of your choice in the appropriate fields.

"System Password" Field

In the **System Password** field select the **Password** button to view the **Change Password** dialog box where you can change the password.

"Night Service Activation Password" Field

In the **Night Service Activation Password** field select the **Password** button to view the **Change Password** dialog box, where you can make changes to the Night Service password.

"Extension Password" Field

Every extension has "00000" as default password (PIN). Using this password the user can access the settings for the extension. In the event that an extension's password is changed and forgotten use the **Extension Password** field to reset the default password "00000."

- Select the extension for resetting the password from the **Extension** list.
- Use the **Reset** button to reset the factory default password to "00000".

"Basic Programming Password" Field

In the **Basic Programming Password** field select the **Password** button to open the **Change Password** dialog box. In this box you can change the password for accessing the Basic folder (4 digits).

It is recommended that you change the **basic password** after logging in for the first time.
Make a note of both passwords and keep them in a safe place.

4.13.15 "Tickets" Tab

If the system is enabled for Caller ID over digital (E1 CAS) or analog lines by a local carrier, the call information will be displayed on the Call Detail Report.

Note:

The **Fields** display the current status of the system settings for each available item.

Enter:

The settings of your choice in the appropriate fields.

In the event of a power outage during ticketing, all tickets that were being sent when the power outage occurred are resent when a connection is once again established.
Example:
If 300 tickets are stored in the memory then

1. The user establishes a new connection, sends 100 tickets and terminates the connection.
2. Once a new connection is established, to send the remainder 200 tickets, a power outage occurs
3. After the power outage, once the user resumes his/her work, a new connection is established. During this connection all 200 tickets that were being sent when the power outage occurred are resent.

"Call Tickets" Field

In the **Call Tickets** field select the type of call detail report you want to use.

- **Incoming/Outgoing Calls** - Outgoing and incoming calls (with or without Caller ID) are ticketed at the end of each call.
- **Outgoing** - Outgoing calls are ticketed at the end of the call.
- **CLIP + Incoming/Outgoing** - As Outgoing and incoming calls are ticketed at the end of the call. Analog CLIP ticketing is also provided (Caller ID for incoming external calls)
- **CLIP + Outgoing Calls** - Outgoing Calls are ticketed at the end of each call. Analog CLIP (incoming call Caller ID) are also ticketed.

"Digit Suppression in Call Detail Reports" Field

In the **Digit Suppression in Call Detail Report** field select the number of digits that should be suppressed on the ticket. These digits are replaced with a "**?**".

"Call Detail Report Filter" Field

In the Call Detail Report Filter field enter the first digits (up to 4) of the destination number to be ticketed during an outgoing call.

For example, in order to record only outgoing international calls you must program the digits "00."

"Account Code" Checkbox

When the **Account Code** check box is selected, the information concerning the **Account code** will appear in the ticket.

An Account Code is specified by a sequence of up to 10 random digits (0...9). For example, the number of a lawsuit. For System Telephones this feature is selected before or during a call, by using the menu, an Account Code or a programmable key. For Standard Telephones this feature must be selected before making a call.

4.13.16 "Message" Tab

This tab allows you assign a message to one of the two B channels on the EVM. Alternatively, the message can be assigned to a MSN, in the MSN subfolder.

If a message is assigned to Channel B, only one Channel B will be available for other activities on the EVM.

"Port" Column

Port B (default is 7491 or 7492) column specifies the EVM line for the message playback.

"Type" Column

The **Type** column specifies whether a message will be played only once or repeatedly.

Configure Greeting Message for B channel to specify a message to be played B (default is 7491 or 7492).

See also Entry Voice Mail - EVM.

4.13.17 "Holiday" Tab

In this tab enter the holidays for the system's calendar.

Note:

The **Columns** display the holidays specified.

Enter:

Names/dates of holidays in the appropriate fields.

"Holiday" Column

In the **Holiday** column enter the name of the holiday.

"Date" Column

In the **Date** column select the holiday dates in the calendar.

4.13.18 "Virtual port" tab

The **Virtual port** tab allows you to define a flexible number for the virtual EVM ports and the virtual Fax/DID ports.

"Virtual port" field

The **virtual port** field shows the available slots of the virtual ports.

"Flexible number" field

Use the **Flexible number** field to change the numbers of the predefined virtual ports.

Note:

You can enter up to five digits.

Virtual ports:

- From 0 to 3 - Virtual Fax/DID ports
- From 4 to 7 - Virtual EVM ports

4.14 Calendar

In the **Calendar** field set the activation and deactivation time as well as the days of the week for Night Service.

Note:

Each weekday can be assigned up to 4 intervals.

Enter:

The **Calendar** field contains a timetable with separate lines for weekdays and holidays. Above these lines there is a time scale in hours (intervals can be set with a resolution of 15 minutes).

To configure the activation time (up to 20 time intervals) select the start time and specify a time interval by clicking with the left mouse button on the **Timetable** column you want to select. Or select the day and time in the **Set Time Interval** field (without using the mouse).

In the **Start Time**, **End Time and Weekday** fields specify the time interval to be used then confirm by clicking the **Add Time Interval** button.
Entries that are not selected are assigned to the deactivation period.
To delete an activation time interval, click the **Delete Time Interval** button and select the interval. .

The activation and deactivation time intervals are the same for all specified holidays.

4.15 Internal entrance telephone

You may connect up to **twenty internal entrance telephones**. Each Entrance Telephone occupies an analog extension slot (a/b) and must be individually activated. An interface between an Entrance Telephones and the PABX, known as **TFE Interface**, is required. The interface configuration depends on the type of TFE adaptor used (see Service Manual and Programming Manual - Entrance Telephone).

The **Entrance telephone** subfolder contains the following tabs:

- "Interface Slot" Tab
- "Attendants" Tab
- "Permission to Open" Tab

4.15.1 "Interface Slot" Tab

In this *tab* you can configure the extension slots for connecting TFE Interfaces.

Note:

This tab displays extension slots that are **connected** and available for configuration.

Enter:

Configuration options for each extension slot are displayed in *columns* below:

"Entrance Telephone" Column

The **Entrance Telephone** column displays the settings that can be configured.

"Interface Slot" Column

The **Interface Slot** column displays the extensions slots that are available for configuration.

"Lock" Checkbox

When the **Lock checkbox is selected** it means that there is a locking device at the extension slot.

4.15.2 "Attendants" Tab

In the **DID tab** you can specify the extensions assigned to answer incoming calls from Entrance Telephones.

Note:

This tab displays all of the extensions that are **connected**.

Enter:

In the *"Selected"* field the **Extensions** that are assigned to Entrance Telephones. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"Entrance Telephone" Column

The **Entrance Telephone** column displays the settings that can be configured.

"Extension in the day group" column

The **Extension in the day group** column displays the extensions that will receive calls from the entrance telephones during the daytime.

"Extension in the night group" column

The **Extension in the night group** column, displays the extensions that will receive calls from the entrance telephones during the night time.

4.15.3 "Permission to Open" Tab

In the **Permission to Open** tab you can specify extensions authorized to use Door Openers.

Note:

This tab displays all of the extensions that are **connected**.

Enter:

The **Extensions** with Permission to Open in the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"Entrance Telephone" Column

The **Entrance Telephone** column displays the settings that can be configured.

"Group Extensions" Column

The **Extension Group** column displays the extensions authorized to open doors.

For further information on how to install and operate a door opening device refer to your TFE adapter documentation.

4.16 Sensor and Relay

The Music Module sensor and relay are configured in the **Sensors and Relays** subfolder. The module provides **1 Relay**, **1 Sensor** and one interface for playing audio data from an external music source(Messages/Music On Hold).

"Relay" Field

In this *field* you can specify the activation mode (manual or automatic) for the **Relay**.

Note:

Additional peripheral equipment (such as a Door Opener, Electronic Lock, Alarms and other) can be controlled by means of the contacts.

When the **relay** is activated, the contacts close. When it is deactivated, the contacts open.

Enter:

The settings of your choice for each item in the following fields:

- **Name:** Enter a name for the Relay.
- **Switch:** The **Relay** can only be switched from an extension by entering an appropriate Feature Code (*90 = on/#90 = off).
- **Monoflop**: The **Relay** is closed for a specified period of time (entered in the field indicated as **Relay Timeout**). Alternatively, the **Relay** can be opened before the specified time by using an extension to enter the feature code (#90).
- **Toggle**: The current **Relay** state is inverted with every selection of (*90).
- **Music on Hold**: When this option is selected, the **Relay** can be used for activating an externally connected device for playing Messages/Music On Hold from an external source. This depends on the HiPath 1100system status (external calls on hold, consultation, toggling, etc.).

When playing music from an external music source it is required that all regulations related to copyrights for the country in question are followed.

- **External Ringer:** When this option is selected, the **Relay** can be used for controlling a second ringer tone for an extension selected from the list.

"Sensor" Field

In this field you can specify actions associated with different **Sensor** contact states.

Note:

The activation logic based on the initial position of the sensor contacts and its resulting actions are programmable.

Additional peripheral equipment (such as a Door Opener, Electronic Lock, Alarms and other) can be controlled by means of the contacts.

Enter:

The settings of your choice for each item in the following *fields*:

"Name" Field

Enter a name for the Sensor in the Name field.

"Activate Relay" Checkbox

When the **Activate Relay** *checkbox* is selected, a **Sensor** can be assigned to a relay and activated as needed. In such a case, the following relay functions can be programmed:

- **Switch:** The **Relay** can only be switched from an extension by entering an appropriate Feature Code (*90 = on/#90 = off).
- **Monoflop**: The **Relay** is closed for a specified period of time (entered in the *field* indicated as **Relay Timeout**). Alternatively, the **Relay** can be opened before the specified time by using an extension to enter the feature code (#90).
- **Toggle**: The current **Relay** state is inverted with every selection of (*90).
- **Music on Hold:** The Relay can be used for activating external equipment connected for playing messages/music.
- **External Ringer:** It is possible to use the Relay to control a second ring for an extension Slot.

"Dial Programmed Number" Checkbox

When the **Dial Programmed Number** checkbox is selected, the system is enabled for dialing an internal or external number that has been entered in the **"Number to be called" Field**.

"Acknowledge Code" Checkbox

When the **Detect Code** checkbox is selected, the destination number must acknowledge or ignore an alarm call by sending an acknowledgment code ("**#"DTMF signal).**

"Number to be called" Field

In the **Number to be Called** field enter a number to be automatically dialed when the sensor is activated. This number is stored in the **System Speed Dialing**. When the number stored in the **System Speed Dialing** is changed, this field is updated. Similarly, when the number in the field is changed, the change is reflected in the System Speed Dialing phonebook.

"Use MSN" Field

This **Use MSN** field specifies the system's MSN to be used for outgoing calls. Through this MSN the destination number is able to identify the origin of the call.

"DTMF signals" Field

In the **DTMF Signal** field you can specify a sequence of digits. This sequence is converted to DTMF signals and sent after a call is answered.. The call destination must be configured in the **"Number to be called" Field**.

"Number of tries:" Field

The **Number of Attempts** field specifies how many times the system should attempt to establish a connection (from 1 to 100) to an internal or external number entered in the **"Number to be called" Field**. (See also **Time between Attempts for Activating the Sensor (minutes)** field.)

An attempt is made after every call that was not answered (busy signal), or when the **"Acknowledge Code" Checkbox** is enabled and no acknowledgment is received. When this occurs, the call is disconnected and a new attempt is made.

"Time between Call Attempts" Field

In the **Time between Call Attempts** field you can specify the time (in minutes) for retrying a call to an extension that was busy. This is done if no **DTMF** code verification has been configured or no **DTMF** code has been entered (or if the code specified is incorrect).

"Sensor Logic (Inactive State)" Field

The **Sensor Logic (Inactive State)** field specifies the state of the sensor. The sensor is able to detect any changes to the state of the Relay (when contacts open or close, for example) via the **Normally Closed** and **Normally Open** fields.

The basic sensor setting can be configured in the following way:

- **Normally Closed** option means that the sensor is enabled when the connected contact is opened.
- **Normally Open** option means that the sensor is enabled when the connected contact is closed.

If an additional security alarm system has been enabled and activated by a configured relay, it can be disabled from any extension with the Service Code #9414 + Programming Password.

4.17 MSN

Use the **MSN** (Multi Subscriber Number subfolder to assign MSN numbers on the digital line to extensions or extension groups for answering incoming calls (see also MSN in the "Basic" folder).

Note:

The MSN reserved for DISA access is not displayed in this table.

Enter:

Extensions, extension groups and digital lines in the appropriate fields.

The **MSN** subfolder contains the following four tabs:

- "Incoming Day" Tab
- "Night Service - Incoming" Tab
- "Day Service - Outgoing" Tab
- "Night Service - Outgoing" Tab
- "Line Assignment" Tab

4.17.1 "Incoming Day" Tab

Use this *tab* to assign **Extensions, Call Groups**, **Hunt Groups** and **UCD Groups** to MSN numbers as First or Second Attendants for incoming calls for **Day Service**. You can also assign **"Busy Signal"** feature (Busy by Busy group) to MSNs individually or in group (more than one MSN can be assigned to one Busy Signal Group).

Note:

The system supports up to 140 MSNs. Each of these 140 numbers can be assigned to a list of up to 10 extensions, 1 group or one mailbox thorough an EVM Virtual Port. The system allows independent configuration for incoming day and night calls. An MSN can have a maximum of 20 digits.

- Call Groups (CG) - 770 to 779
- Hunt Groups (HG) - 780 to 789
- UCD Subscriber Groups - 790 to 799

- EVM Virtual Ports - 744 to 747

Enter:

In the *"Selected"* field the **MSNs** to be changed or assigned to **Extensions** and **Extension Groups** as First Attendants and Second Attendants for external lines. To make this selection place the cursor in the *"Available"* field, select the **Extension** or **Group**, and use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"MSN" Column

The **MSN** column shows the MSNs available for configuration.

"Busy Signal" Column

The **Busy Signal** column displays the Groups for the Busy Signal feature. If you would like to assign more than one MSN to a Group, select the appropriate column *field* for the MSN and enter the new group.

This features allows all telephones in the "Busy Signal" Group to automatically switch to a busy signal when an extension in the group (which activated the call) has a call in progress. External calls no longer ring (caller hears a busy signal).

This is useful when there is only one person available in the group and this person does not want to be disturbed by external calls while there is a conversation in progress. The caller will think that the called person is busy at the moment.

"First Attendant" Column

The **First Attendant** column contains the same information as the *First Attendant* field. It also displays Extensions, Groups and EVM Virtual Ports (mailboxes) available for answering incoming calls.

"Second Attendant" Column

The **Second Attendant column** contains the same information in the *Second Attendant* field. It also displays Extensions, Groups and EVM Virtual Ports (mailboxes) available for answering incoming calls when the First Attendant is unavailable or does not answer a call within the timeout specified in the **Configuration tab -** "Waiting Timeout" Column.

4.17.2 "Night Service - Incoming" Tab

Use this tab to assign **Extensions, Call Groups**, **Hunt Groups** and **UCD Groups** to MSN numbers as First or Second Attendants for incoming calls for **Night Service.** You can also assign a **Busy Signal** feature (Busy by Busy Group) to individual MSNs or groups of MSNs (more than one MSN in one Busy Signal Group).

Note:

The system supports up to 140 MSNs. Each of these 140 numbers can be assigned to a list of up to 10 extensions, 1 group or 1 mailbox through an EVM Virtual Port. The system allows independent configuration for incoming day and night calls. An MSN can have a maximum of 20 digits.

- Call Groups (CG) - 770 to 779
- Hunt Groups (HG) - 780 to 789
- UCD Subscriber Groups - 790 to 799
- EVM Virtual Ports - 744 to 747

Enter:

In the *"Selected"* field the **MSNs** to be changed or assigned to **Extensions** and **Extension Groups** as First Attendants and Second Attendants for external lines. To make this selection place the cursor in the *"Available"* field, select the **Extension** or **Group**, and use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"MSN" Column

The **MSN** column shows the MSNs available for configuration.

"Busy Signal" Column

The **Busy Signal** column displays the Groups for the Busy Signal feature. If you would like to assign more than one MSN to a Group, select the appropriate column *field* for the MSN and enter the new group.

This features allows all telephones in the "Busy Signal" Group to automatically switch to a busy signal when an extension in the group (which activated the call) has a call in progress. External calls no longer ring (caller hears a busy signal).

This is useful when there is only one person available in the group and this person does not want to be disturbed by external calls while there is a conversation in progress. The caller will think that the called person is busy at the moment.

"First Attendant" Column

The **First Attendant** column contains the same information as the *First Attendant* field. It also displays Extensions, Groups and EVM Virtual Ports (mailboxes) available for answering incoming calls.

"Second Attendant" Column

The **Second Attendant column** contains the same information in the *Second Attendant* field. It also displays Extensions, Groups and EVM Virtual Ports (mailboxes) available for answering incoming calls when the First Attendant is unavailable or does not answer a call within the timeout specified in the **Configuration tab -** "Waiting Timeout" Column.

4.17.3 "Day Service - Outgoing" Tab

In this tab you can configure outgoing calls for **Day Service** so that an extension in a group can make calls using a selected MSN.

Note:

This tab will show only the extensions that are available.

Enter:

The **Extensions** to be assigned to the **Group** in the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"MSN" Column

The **MSN**column shows the MSNs available for configuration.

"Group Extensions" Column

The **Group Extensions**column displays the extensions assigned to a specific MSN.

4.17.4 "Night Service - Outgoing" Tab

In this *tab* you can configure outgoing calls for **Night Service** so that an extension in a group can make calls using a selected MSN.

Note:

This tab will show only the extensions that are available.

Enter:

The **Extensions** to be assigned to the **Group** in the *"Selected"* field. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"MSN" Column

The **MSN**column shows the MSNs available for configuration.

"Group Extensions" Column

The **Group Extensions** column displays the extensions assigned to a specific MSN.

4.17.5 "Line Assignment" Tab

In this *tab* you can assign External Lines to available MSNs.

Note:

This tab displays only the available lines.

Enter:

The **Lines** for creating a **Group** in the "*Selected" field*. To make this selection place the cursor in the *"Available"* field, select the **Extension** then use the **">"** button to move to the *"Selected"* field. Use the **"<"** and **"<<"** buttons to reset selected items in the *"Available"* field. You can also make the selection by double-clicking the selected item with the left mouse button.

"MSN" Column

The **MSN** column shows the MSNs available for configuration.

"Lines" Column

The **Lines** column displays digital lines assigned to a specific MSN.

4.18 Fax/DID

The HiPath 1100 can use a Fax/DID facility (direct dialing to the extension) that provides **Auto-Answering for External Call**, **Message Playback** and **Fax Signal Detection**. A caller can dial any extension or enter any digit configured in the **Answering Menu** and be transferred to another extension or group. The maximum number of calls that can be simultaneously answered is 8.

This feature has three operating modes:

Fax Mode

In this operating mode the module detects only fax signals. A greeting message is played for all incoming external calls. If the caller wants to send a fax, the transmission can be started at the end of the message. If no fax signal is detected within 10 seconds of the greeting message a second message is played and the call is transferred to an Attendant.

DID Mode

In this operating mode the facility detects fax signals and extensions or digits entered. When an external call is answered, a greeting message is played to guide the caller. The following is an example of a recorded message: "You have reached Siemens. Dial the extension number you would like to reach: 22 for Sales Department or 23 for Technical Support".
If the Fax/DID does not detect a valid MF signal within 10 seconds of the greeting message, a second message is played and the call is transferred to an Attendant.

Fax/DID Mode

In this operating mode the facility detects fax signals and extensions or digits entered. When an external call is answered a greeting message is played to guide the caller. The following is an example of a recorded message: "You have reached Siemens. To send a fax start transmission now. For Sales Department dial 22. For Technical Support dial 23". If no valid fax signal, digit or extension is detected within 10 seconds of the greeting message, a second message is played and the call is transferred to an Attendant.

Message Mode

When an external call is answered, a greeting message is played and the call is transferred to an attendant.
The following is an example of a recorded message: "You have reached Siemens. Your call is being transferred."

Auto-Fax Mode

When this mode is enabled, the system can detect a fax signal during the first ten seconds of a conversation then transfer the call to a specified extension, such as a Fax/DID. When no signal is detected the conversation proceeds as usual.

In the **Fax/DID** subfolder are assigned numbers for accessing a Fax/DID Module and all its features.

Note:

Messages stored in this module can be programmed as a Second Attendant for external calls or as a **Forwarding Destination for an Extension** (see Call Forwarding in the User's Manual).

Enter:

Destination numbers for call forwarding, extensions, extension groups and any other settings in the appropriate *fields*.

The **Fax/DID** subfolder contains the following four tabs:

- "Virtual Extension" Tab
- "Call Answering Menu" Tab

4.18.1 "Virtual Extension" Tab

In the **Pseudo Port** tab you can assign new numbers to slots and enable Collect Call Barring.

The default configuration includes the following assignments:

- 740 - Fax Mode
- 741 - DID Mode (direct dialing to an extension)
- 742 - Fax/DID Mode
- 743 - Message Mode

Note:

You can enter up to five digits.

This tab displays all ports **available**.

The **columns** display the current number and configuration of the slots

You can import/export the settings to other items using the Copy and Paste functions.

Enter:

The new number for the **Pseudo Port Slot** and **Collect Call Barring**, if required.

"Pseudo Port" Column

The **Pseudo Port** column displays the logical slot for the Fax/DID feature ports.

"Flexible Number" Column

In the **Flexible Number** column select a Port to configure and enter a new number.

"Collect Call Barring" Checkbox

When the **Collect Call Barring** checkbox is selected, all collect calls to a **Pseudo Port Slot** are automatically rejected by the system.

Call Barring does not work for calls transferred to a Fax/DID .
If a call has been answered at least once by the system, Collect Call Barring cancels the blocking.
If an incoming call over a digital line is forwarded because there was no answered (*14), and Collect Call Barring is activated, the call will ring at the First Attendant for the external line.

4.18.2 "Call Answering Menu" Tab

In the **Call Answering Menu** tab you can create a customized Call Answering Menu as well as transfer a call to a specific extension or group according to the digit entered.

A call is transferred to a preconfigured destination after 3 seconds. If a digit is entered before this period of time, it will be analyzed and the call will be forwarded to a new destination. The destination can be an extension or a group.

Note:

When the Call Answering Menu is not configured, the Fax/DID feature can only detect extension and group numbers.

The **Music Module** RelayHiPath 1120 operation as well as the **Remote Administration** feature can also be configured in this tab.

The **Columns** show the current extension configuration status for **Call Forwarding Numbers**.

Enter:

The assignments for Extensions, Relay (HiPath 1120 Music Module) and Remote Administration to **Call Forwarding Numbers**.

"Slot" Column

The **Slot** column displays digits that can be assigned to the extensions, relay, and remote administration for forwarding calls.

"Destination" Column

In the **Destination** column select an **extension**, **Relay** option (HiPath 1120 Music Module) or **Remote Administration** to assign to **Call Forwarding Numbers**.

When an **Extension** option is assigned to a **Call Forwarding Number** you can route a call to a selected extension from the list, once the call has been answered by a Fax/DID feature and a digit was selected and entered to specify the Call Forwarding Number for the extension.

When a **Relay** option is assigned to a **Call Forwarding Number** you can turn the HiPath 1120 **Music Module Relay** on/off once the call has been answered by a Fax/DID feature and a digit was selected and entered to specify the Call Forwarding Number for this option (Relay on/off - *90/#90 + system password) (see **Sensor and Relay**).

When a **Remote Administration** option is assigned to a **Call Forwarding Number** you can activate it once the call has been answered by a Fax/DID feature and a digit was selected and entered to specify the Call Forwarding Number for this option (see **"Remote Administration" Tab**).

4.19 Timers

In the **Timers** subfolder you can reset the default times for certain features and signaling according to specific user's preferences or to a Country.

The **Timers** subfolder contains the following four tabs:

- "General" Tab
- "Extensions" Tab
- "Lines" Tab

4.19.1 "General" Tab

The following fields are configured in the **General** tab:

"Line" Field

"Time between Rings" Field

In the **Time between Rings** field you can change the time period between rings for incoming calls. This is the period of time between two call pulses from the local carrier. After this pause, the system disconnects the external line and is ready to receive new incoming calls.

The call pause time between pulses varies depending on the country. Here you can specify the setting as you prefer.

"Reseizure Timeout (100ms)" Field

In the **Reseizure Timeout** field you can change the timeout specified for reseizing an external line. This timeout consist of a time interval during which the line remains blocked after the end of a call.

"External Room Monitor" Field

In the External Room Monitor field you can specify a period of time after which the monitoring call is disconnected. During the period of time specified a user can access the system through a Fax/DID feature for Room Monitoring purposes (Babyphone) from an external telephone.

"Time in Fax/DID Queue" Field

In the **Time in Fax/DID Queue** field you can specify the maximum time for an external call to remain in a Queue. When the specified time expires the call is disconnected or forwarded to an overflow extension.

"External-to-External Transfer" Field

"Disconnect Timeout After Transfer" Field

In the **Disconnect Timeout After Transfer** field you can set a length of time for disconnecting an external call over an analog line after the call is transferred to an external destination by an authorized extension. This timeout can range from 20 to 600 seconds. The default setting is 300 seconds.

"Disconnect Timeout Code" Field

In the **Disconnect Timeout Code** field you can set a code for restart the disconnect timeout for an external call over an analog line after the call is transferred to an external destination by an authorized extension. The maximum number of digits is 2; default setting is 00.

Once the call is transferred and answered at the destination, a disconnect timer is activated (default is 5 minutes). A 20-second warning tone is sent to both parties before the call is disconnected. In order to continue the call without disconnecting, the destination number must enter this code (MF, default "00") to restart the timeout.,

4.19.2 "Extensions" Tab

In the **Extensions** tab you can configure a **Flash Detection Timeout** for each extension.

For analog DTMF telephones with a Flash key, this key (also known as consultation or signal key) sets up a consultation call (for example, for Toggling, Conference or only Consultation). In order for the HiPath 1100 system to detect the signal from a Flash key, the setting for Flash Detection Timeout must be the same as the factory default setting for the analog DTMF telephone used. For more information on Flash Detection Timeout, please refer to the telephone manual.

"Extension" Column

The **Extension** column displays the extensions available in the extensions.

"Flash Detection Timeout" Column

In the **Flash Detection Timeout** column select the maximum period of time (001 ms to 250 ms) required by the system for detecting a Flash signal generated by an internal telephone.

4.19.3 "Lines" Tab

In the **Lines** tab you can configure a **Flash Detection Timeout** for each external analog line.

The duration of the Flash signal that is sent by the system to each external analog line can be configured individually. Flash signal duration depends on the specific setting for each country. For information on the time required for Flash detection on an external line consult your local carrier.

"External Line" Column

The **External Line** column displays all analog lines available in the system.

"Flash Detection Timeout" Column

In the **Flash Detection Time** column select the time for Flash duration on an external line that the system requires in order to send to the local carrier.

4.20 PABX Information

The **PABX Information** subfolder displays the HiPath 1100 system configurations currently accessed by the HiPath 1100 Manager.

The **Extensions** subfolder contains the following four tabs:

- "General Information" Tab
- "PABX Layout" Tab
- "Slot Allocation" Tab
- "Board Configuration" Tab

4.20.1 "General Information" Tab

The **General Information** tab displays the following information:

- PABX Model
- PABX Release
- PABX Version
- Specific Version Number
- Country for which it is configured
- Number of extensions available
- Maximum number of extensions

- Number of external lines available
- Maximum number of external lines
- Connected modules and occupied slots

HiPath 1100 Systems Set

The HiPath 1100 is comprised of the following systems:

- HiPath 1120
- HiPath 1150
- HiPath 1190

HiPath 1100 Accesses:

- External lines:

  Basic S_0 digital (for S_0 Module);

  Primary access with E1 CAS signaling (for TME1 Modules)

  Primary access with S2 signaling (for TME1 Modules)

  ADSL access and LAN interface (ADSL, SLIMC, SADSLIM, LIMC or ADSLIM modules);

  Analog line
- Internal extensions:

  System Telephones Models E3030, E821 ST and E822 ST

  Standard Telephones, Pulse (DP) or Tone (DTMF)

  Answering machine

  Fax

  Entrance Telephone/Door Opener with TFE adaptor
- One sensor and one relay:

  HiPath 1120 - in Music Module
- V.24 and USB adapter enable system programming with the "HiPath 1100 Manager,"CTI functions, CDR data printing, configuration report printing, etc.

Expansions

The HiPath 1100 system has the following Expansion Boards available:

- EB 202: 2 external analog lines and 2 analog extensions
- EB 204: 2 external analog lines and 4 analog extensions

- EB 206: 2 external analog lines and 6 analog extensions
- EB 210: 2 external analog lines and 10 analog extensions
- EB 200: 2 external analog lines
- EB 400: 4 external analog lines
- EB 800: 8 external analog lines
- EB 010: 10 analog extensions
- EB 012: 12 analog extensions

Option Modules

- S_0 Module: This module enables you to request from your local carrier the conversion of an analog telephone line into a digital telephone line with EDSS1 signaling. This digital line, by using a basic S_0 access, can provide some ISDN features.
- TME1 Module: This module enables you to request from your local carrier the conversion of an analog telephone line into a digital telephone line with E1 CAS access or S2 access. This digital line, by using a basic access, can enable some ISDN features.
- ADSL expansion boards: These provide a LAN Ethernet interface via their RJ45 connectors that allow you to set up a LAN, as well as providing access to and from this network. The module used may also be equipped with an ADSL (Asymmetric Digital Subscriber Line) modem, on which it is possible to receive high-speed data and voice (up to 8 Mbit/s) through a single pair on a standard telephone line (POTS).
  - In HiPath 1100 V6.0, there is an **ADSL Module** equipped with ADSL modem functions and a LAN interface together on the same slot.
  - In HiPath 1100 V7.0, there is a LIM module (ADSL expansion board) and the ADSL modem can be mounted optionally on this slot.
    - HiPath 1120 : **SLIMC module** and **SADSLIM module**;
    - HiPath 1150/1190 : **LIMC module** and **ADSLIM module**;

The ADSL modem used in HiPath 1100 V7.0 is the Siemens SpeedStream 4100. You can consult the configuration instructions in the manual which you will find in the Setup and Installation CD.

Music module (H1120): This offers the possibility to insert music on hold (MOH) for calls from an eternal music source (for example, radio) connected directly to the module's external music input.

- The module also has a relay and a sensor that work individually or in conjunction with other devices, such as entrance telephones, door openers, alarms, etc.
- CDB 16 (H1190) Module: This module is used for connecting up to 16 System Telephones.

4.20.2 "PABX Layout" Tab

The **PABX Layout** tab displays the schematics for the PABX motherboard and the modules connected to the system. This layout is dynamic as to the information and diagrams displayed for the modules connected in each slot. The drawings present an overview of the PABX Main Distribution Frame (MDF) and a visual illustration of the module locations and the system's extensions and external lines. You can also see the numbering for extensions and external lines and the logical numbers for the ports assigned.

For a better view of the schematics and drawings use these controls:

- More Zoom - Expands the viewing area
- Less Zoom - Reduces the viewing area
- Resize Window - Adjusts the drawings to the size of the window
- Pan View - Move the cursor on the screen and click with the left mouse button to move the viewing area.

4.20.3 "Slot Allocation" Tab

The **Slot Allocation** tab displays the available slots and their respective assignments.

"Slot" Field

In the **Slot** field you can select a slot position to be displayed on the screen.

"Clean Slot" Checkbox

When the **Clean All Slots** checkbox is selected, all ports assigned to a selected slot are removed.

"Clean All Slots" Checkbox

When the **Clean All Slots** checkbox is selected, all assignments between ports and slots are cleared

4.20.4 "Board Configuration" Tab

The **Slot Configuration** tab allows you to configure the slots available and the type of board for each slot.

"Slot" Column

In the **Slot** column select a slot position to be displayed on the screen.

"Board" Column

In the **Board** column select the board for each slot position.

"Options" Field

Use the **Options** field to configure modules for the system. A checkbox for each module is enabled, according to the system's capacity.

- **CD** - allows you to use more than 16 interfaces for the HiPath 1190 ;
- **MOH -** You can enter music for external calls that are placed on hold (MOH) using a music source on the **HiPath 1120**
- **EVM -** allows you to use Voice Mail services with the systems
- **UPN -** provides the system with connection for optiPoint 500 telephones using 8, 4 or 2 interfaces on HiPath 1150/1190 systems and 4 or 2 interfaces on HiPath 1120 systems.

"Available TME1 Ports" Field

In the **Available TME1 Ports** field you can specify how many ports are available on the TME1 module.

Note:

To enable this field you must configure a slot with an E1 Board.

5 Status Monitor

The Status Monitor application was designed for displaying PABX connection status information. After installing the application from the CD that comes with the system, follow one of these procedures to start it: `Start/Programs/Siemens HiPath 1100/StatusMonitor.`

After selecting **Start/Programs** the application icon is displayed in the **Task Bar**, in the **Sys Tray** field, indicating that the Status Monitor is active.

Status Indicators

Moving the mouse over the icon and pressing the left button displays a **window** with four **Status Indicators**:

- This indicates when the HiPath 1100 system is turned on/off

- This indicates that there is an external call in progress

- This indicates that there is a message in the mailbox;

- This indicates that the HiPath 1100 is connected to a remote PC

(for Remote Administration or Software Update)

To minimize the Status Monitor click the “X” on the upper right corner.

Sys Tray Menu View

Right-click the icon to display the Status Monitor **Menu**:

Item	Description
Status Monitor	Shows/Hides the **Status Indicator** window.
Connect	Connects/Disconnects the Status Monitor.
Configuration	Opens the configuration window for specifying: **Language** - choose the language for the interface **CommServer Configuration** - enter the "Address" and "Port" used.
Help	Enables the application's **Help** feature.
About Status Monitor...	This displays information about the Status Monitor application.
Exit	This closes the application.

6 CommServer

The CommServer application provides the interface for the HiPath 1100. All applications to be connected to the HiPath 1100 must first interact with the CommServer.

If one of the ADSL expansion boards(SLIMC, SADSLIM, LIMC or ADSLIM modules) is installed in HiPath 1100 V7.0, it will not be necessary to use the CommServer installed on your machine, as these modules already have an inbuilt CommServer called and **CommServer**. You may therefore make an authorized LAN access to the PABX of an external application such as those that use the **SNMP** platform.
The IP addresses and the port of the ADSL expansion board are configured in the HiPath 1100 Manager, in the Tools/**CommServer Configuration** menu.

Default:

- Port: 3100
- Default IP of the module: 192.168.254.253;

The following options are available for accessing the CommServer installed on your PC:

- Click on the Windows **Start Menu** to activate CommServer:
  Start/Programs/Siemens HiPath 1100/CommServer.
- After accessing the HiPath 1100 Manager **Menu Bar**, configure the CommServer by clicking on:
  Tools/CommServer Configuration
- After accessing the **Task Bar** in the **Sys Tray** field, configure the properties for the CommServer:
  - The icon indicates that the CommServer is active and connected to the HiPath 1100
  - The icon indicates that the CommServer is active and connected to the HiPath 1100.
  - The icon indicates that the CommServer is inactive and not connected to the HiPath 1100..
  - The icon indicates that the CommServer is trying to connect to the HiPath 1100.
  - The icon indicates that the CommServer is waiting for a call from the HiPath 1100 to initiate the Server Mode or to perform a Software Update.

On the **Sys Tray Menu** folder you can configure the CommServer Menu:

- Sys Tray Menu

6.1 Sys Tray Menu

Right-click the icon to display the CommServer **Menu**:

Item	Description
Properties	Open the CommServer **Properties** configuration window.
About CommServer ...	This displays information about the CommServer application.
Exit	This closes the application.

On the **Properties** folder you can configure the **Sys Tray Menu:**

- Properties

6.1.1 Properties

CommServer properties can be accessed through the Sys Tray Menu or by double-clicking the icon. :

"Language Configuration" Field

In the **Language** field you can specify the language to be used for the CommServer interface.

"CommServer Configuration" Field

The **CommServerConfiguration** option opens a **window** where you can specify or select where the CommServer should be installed:

- The TCP/IP COM **Port** where the CommServer will connect to the HiPath 1100 Manager so it can perform PABX operations. The valid address is **3100**.
- The **IP address** of the location where the CommServer application is installed.

Information entered in this field must match the information entered in the HiPath 1100 Manager in the Tools/CommServer Configuration menu.

"Connection Type" Field

In the **Connection Type** option you can select how the HiPath 1100 Manager will access the PABX.

- **USB Connection**

Connection is accomplished by using an USB interface (PC → System).

- **optiPoint USB Connection**

Connection is accomplished via optiPoint (PC → optiPoint → System).

- **Connection using an external analog modem**

Connection between PC (Analog modem) → System (Analog modem) is accomplished by using an external analog modem. The following parameters need to be configured:

- General Settings:

– **Enable Server Mode**": checkbox
This option enables a connection to the software update server using an external MSN recorded in the "**Phone #**" field.

– **"Default Port Detection":** checkbox
The system automatically detects the port where the modem is connected, or the user can select the port where the modem is connected.

- Advanced Configuration:

– Use these *fields* to enter the settings for the modem to be used. This information can be found in the manual provided with the modem. Otherwise, use the default settings.

  – If you use the Trendnet v.92 56K - TFM-560X or D-Link v.90 56K - DFM - 560EL modem, you must use the adapter cable for analog modem (see Service manual - Adapter cable for analog modem) and set/check the start-up and reboot code of the modem connected to the switch using **HiPath 1100 Manager**.

  – If the modem is connected to the PC (remote modem), the modem cable should be used and the initialization code set using **CommServer**.

"Modem control" field

"Reset" field

The *Reset* field indicates the default values of the system:

- US-ROBOTICS: ATZH0
- TrendNet: ATZH0
- D-LINK: +++,,,ATHATZH0

"Start-up" field

In the **Start-up** field, the default setting for these modems is as follows:

- US-ROBOTICS: AT&F0&B1F1S0=0
- TrendNet: AT&F0&B1F1&D0S0=0.
- D-LINK: AT&F0&D0S0=0

- **S_0 ISDN Connection**

  Connection between PC (ISDN card) → System (S_0 module) is accomplished by using an ISDN modem.

  – "**Enable Server Mode**" Checkbox:
  This option enables a connection to the software update server using an external MSN recorded in the "Phone #**"** field.

  – "**Your MSN**" field:
  Specifies the MSN of the port through which the ISDN card is connected to the PC.

- **ADSL Connection**

  The connection between the PC → System (ADSL expansion board) is accomplished via LAN.

  – **Get IP # Automatically**" checkbox:
  Determines whether or not the system detects the IP address of the ADSL expansion board automatically.

  The "**Port**" field:
  Identifies the default port of the ADSL expansion board (Port 9366).

For the **HiPath 1100 v 6.0**, if one of the ADSL expansion board (SLIMC, SADSLIM, LIMC or ADSLIM modules) is installed, you will need to use the default IP of the module (192.168.254.253) or the IP configured in the administration SW of the new modules called **Siemens Admin Console** (see service Manual - HiPath 1100 applications).

For **HiPath 1100 v 7.0** if one of the ADSL expansion board is installed (SLIMC, SADSLIM, LIMC or ADSLIM modules), this option will be disabled and the connection should be made using the module's eCommServer.

- **Serial Connection**

  The connection between PC → System is accomplished via a serial interface.

  – "**Port**" field:
  This tells the system to which port the serial interface is connected.

– "**Baud rate**" field:
Specifies the data rate for the connection.

"Advanced Configuration" Field

The **Advanced Configuration** option specifies a TCP/IP COM **Port** for connecting the CommServer to the HiPath 1100 Manager in order to perform PABX operations. The valid address is 3100.

“Issuing and Sending Log Data” field

Use the **Issuing and Sending Log Data** option to save information from the applications of the PABX/PC in a particular directory and send them via e-mail.

This is done in the following order:

1. Select the **Start/Stop Log** button
2. The user should reproduce the problem in the system
3. Select the **Start/Stop Log** button
4. Select the **Send/Save current information**button (depending on the settings;

“Applications” field

In the **Applications** field, you may choose which applications information is obtained from. The applications available are*:*

- CommServer service
- CommServer GUI
- Manager
- Software Update
- Telephone Texts Translator

”Settings" Field

Use the **Settings** field to select whether the information from the applications should be saved or sent by e-mail.

“Send E-mail” checkbox

With the **Send E-mail** checkbox selected, you can send a file via e-mail with information concerning the PABX/PC*.*

When you select the **Send E-mail** option, all the information collected will be compressed in a file and attached to an e-mail. The body of text will contain a message informing that the user is sending its information.

"Save in a directory" checkbox

With the **Save in a directory** checkbox selected, you can save the file with the information in a specific directory.

When you select the **Save in a directory** option, all the information collected will be compressed in a file and saved in the selected directory. The temporary directory is the default setting. When the file is saved, a message box will indicate that all the information was saved.

"Start/Stop log" button

The **Start/Stop log** button starts or stops the process in order to generate the file with the PABX/PC information.

Initially, the button appears as **Start Log**. When you press the button, it will be replaced by the **Stop Log button.** The **Applications** field and **Send/Save current information** buttons will be disabled.

"Send/Save current information" button

The **Send/Save current information** button sends or saves the file with the PABX/PC information generated.

The option to send or save the information depends on the configuration of the **Settings field,** which defines the destination of the files.

7 Software Update

The Software Update application is used for updating the HiPath 1100 system software.

There are two ways to start the Software Update:

- Click the Windows **Start Menu** to activate:
  Start/Programs/Siemens HiPath 1100/Software Update.
- Access the HiPath 1100 Manager **Menu Bar**:
  Tools/Software Update

This application provides step by step information on how to proceed in the software update. Use the "Next" button to go to the next step of the configuration procedure. Use the "Back" button to go back to the previous step in the procedure.

The software is updated in two steps:

1. Transfer data from the system software to the HiPath 1100
   .During this procedure the extensions operate as usual.
2. Load the system software into the memory.
   Telephones cannot operate during this procedure (approximately 3 minutes).

Language Configuration

In the **Language** field you can specify the language to be used for the Software Update interface.

CommServer Configuration

The **CommServer Configuration** option opens a **window** where you can specify or select where the CommServer should be installed:

Database Configuration

The **Database Configuration** option opens a **window** where you can specify whether data from the PABX should be imported before updating the software. This is provided in case the data of the accessed system is different from the new database to be loaded. This is important because the software update may load the default PABX database which will eliminate the precious existing configuration. In the event that the Software Update can identify the differences between the existing system database and the new database the following options are available:

- **Keep the Database (Manual Mode)**

  When this option is selected, by clicking "Next," the Software Update starts importing the switch's configuration. However, before clicking the button, you must first specify the configuration folder to receive the imported data. This is done in the "Database Path" *field*.

- **Keep the Database (Automatic Mode)**

  When this option is selected, two new options are made available for importing the database from the switch.

  - **Save the . bup image**

  The data stored in the switch is automatically saved at the address shown in the **".bup Directory"** field.

If an error occurs, the import can be redone by clicking the "Next" button again.

- **Do Not Keep Database**

  When this option is selected, the system database is not saved.

Before importing data from the PABX, you may enter the database information in an ID window that is opened at that point.

MOH configuration

This makes it possible to save the MOH of the PABX before the software update. After the data is updated, the system automatically restores the saved MOH.

- **Save MOH (manual mode);**
- **Do not save MOH.**

EVM configuration

This makes it possible to save the EVM before the software update. After the data is updated, the system automatically restores the saved MOH.

- **Save EVM (manual mode);**
- **Don't save EVM.**

Settings for Downloading APS Versions

The **Settings for Downloading APS Versions** option opens a **window** where the user can configure settings for downloading new PAS versions available at the Siemens home page.

- **Always check for new APS versions.**

  Each time you use the Software Update a pop-up window will prompt you to check for a newer version by connecting to the Internet.

- **Ask if I want to check for new APS versions**

  Each time you use the Software Update you will be prompted to check for a newer version by connecting to the Internet.

- **Never check for new APS versions**

  You will not be prompted to check for newer APS versions on the Internet.

- **First check for new versions on:**
  - Siemens Home page: You will be directed to the Siemens Home page where the APS versions can be downloaded.
  - In the APS versions directory: Specify the directory in which the APS versions are stored.

- **Default Setting**

  Restores factory settings.

Local SW Update

The **Local SW Update** *option* requires a Software Update on the PC connected to the HiPath 1100. The update operation is performed from a local PC.

No settings need to be configured in the HiPath 1100 Manager before doing a Local SW Update.

Requirements

- The new software package (PABX system software update) must be on the PC where the Software Update was installed (e.g., CD or Internet download).
- To configure default settings check the following information for the **CommServer** application in the **"Connection Type"** field:

– **USB Connection** PC → System	Connection Type: **USB**

– **S_0 ISDN Connection** PC (ISDN card) → System (S_0 module)	Connection Type: **ISDN** - Phone #: 800 (default) - Your MSN: ---
– **ADSL connection** PC → LAN network → System (ADSL expansion board)	Connection Type: **Network** IP # : localhost Port: 9366
– **Serial Connection** PC → System	Connection Type: **Serial** Port: COM 1 Baud Rate: 115200

Procedure

1. After checking all settings in the first window, click the Next button to proceed with the configuration.
2. In the next window you are prompted to enter the path for the directory containing the ***.B86** file with the software update (e.g., the directory where the software update was saved after being downloaded from the Internet.).
   The following update options are available on this screen:
   - **Software Update** for HiPath 1100

   or
   - **Music on Hold** Update (Internal - fixed) for HiPath 1100
3. On the third step you will be prompted to enter a programming **password**. By default (**Immediate** checkbox selected) the system software is downloaded to the system's memory **immediately** after the data transfer.
   To execute the **download later** (**Immediate** checkbox cleared) specify the date and time for the procedure (system switchover).
4. As a last step, you must initiate the data transfer. The status bar shows the progress of the data transfer.
   After the data transfer is completed (approximately 3 minutes), the system software that has been transferred is prepared for loading into the system's memory.
5. To finalize the procedure close the installation window by selecting **Finish**.

After completion of the data transfer, the switch determines whether a specific time was set for loading the software. In the event that no time was specified the switch starts to decompress the software. During this process the switch is out of service (less than 1 minute).

You can check the current **HiPath 1100 version** (system software) when you start the HiPath 1100 Manager by selecting **PABX Information** in the **File** menu.

Automatic Software Update from an Update Server External

The Software Update is available on an update server running on **Server Mode** (configured in the CommServer).

> An automatic software update is supplied for patches only.
> Updates with a new software version (for example, with more advanced features) are only provided when using the **Software Update** or a **Remote Administration**!

There are three ways of starting an automatic software update with the HiPath 1100 from an external update **server**:

- By activating a **scheduled** automatic software update with HiPath 1100 Manager. See **"Software Update" Tab**.
- By authorizing remote administration by means of the programmers extension slot (Extension 11) with the service code *992.
- By **immediately** activating the automatic software update by means of the Programming Extension slot (Extension 11) with the service code *9415.
  After entering the service code *9415, a connection to the external update server is established via a service MSN registered in the **"Software Update" Tab**. The software update is then automatically completed.

Requirements

- You obtained a service MSN that must be dialed to start a HiPath 1100 automatic software update.
- A service MSN was specified in the **External Number** field (without external code "0") in the **"Software Update" Tab** of the HiPath 1100 Manager.
- To program a **scheduled** automatic software update you specified the settings (dates) in the **"Software Update" Tab** for the data transfer and its loading into the memory.

8 MOH Transfer

MOH Transfer is an application designed to convert a MIDI or WAVE file to a format that can be recognized by the HiPath 1100 then transmitted throughout the system. Once this is done the PABX has more tunes available for its internal Music On Hold (MOH) feature.

Given the fact that most MIDI files feature a wide range of channels capable of storing many note lengths, pitches and effects, it is recommended that only monotone MIDI files be converted to the HiPath 1100 format.

After installing the application from the CD that comes with the system, follow one of these procedures to start it: `Start/Programs/Siemens HiPath 1100/`MOH Transfer.
The Menu Bar can be configured in the **User Interface** folder:

- User Interface

8.1 User Interface

Menu Bar

"File" Menu

Option	Description	Shortcut
Open	Opens a MIDI or WAVE file in the selected directory.	Ctrl+O
Transfer music to PABX	For transferring the converted MIDI or WAVE file to the PABX. (system password required)	Ctrl + T
Configure default melody for Music on Hold	Specifies the default tune for MOH. (system password required)	Ctrl + M
Configure default WAVE file for Music on Hold	Programs the default Wave tune for MOH. (system password required)	Ctrl + P
Recent Files	Shows the last files used	
Exit	This closes the application.	

"Play" Menu

Slot	Description
Play original music	Plays the file in its original format.
Play as HiPath 1000	Plays the file converted to the HiPath 1100 format.

Stop	Stops the file playback.

Tools Menu

Slot	Description	Shortcut
Configuration	Opens the CommServer configuration box.	Ctrl + S
Audio Level	Open the volume control box. (for WAVE files only).	Volume
Language	This setting lets you chose the language for MOH Transfer.	Language

"Help" Menu

Slot	Description	Shortcut
Help Topics	This opens the program's Help feature.	F1
About MOH Transfer...	Shows information about the MOH Transfer application.	

Toolbar

The *Toolbar* contains shortcut icons for accessing frequently used menu items such as:

- Open (**"File" Menu)**

- Play original music (from **"Play" Menu**)

- Transfer music to HiPath 1100 (from **"File" Menu**);

- Play as HiPath 1100 (do **"Play" Menu**);

- Stop (from (**"Play" Menu**);

"Channel" Field

The **Channel** field shows the active channels in a MIDI file that have been opened with the **Open** option and that can be converted and transferred to the systemHiPath 1100 using the **Transfer music to HiPath 1100**.

Note:

It is recommended to hear the playback of the converted file before transmitting it. This can be done by selecting the **Play as HiPath 1100/Stop.**

The MIDI Transfer Wizard converts MIDI files to the HiPath 1100 format. This format is limited to 1 MB in size. If the resulting converted file is larger than 1 MB, a message to this effect will appear. When this occurs, the user has the option of canceling the process or accepting the file reduced to a smaller size. After the download, the audio files are updated automatically. Music on Hold is not available while the update is in progress. No tone signal is audible while calls are on hold during this time (silence).

Only one audio file at a time can be loaded in the HiPath 1100 system. This means that when you transfer a converted MIDI or WAVE file, the existing audio data in the HiPath 1100 system will be overwritten. The size of the converted audio file is limited to 1MB.
While transferring audio content for Music On Hold, make sure that all applicable copyrights laws are respected.

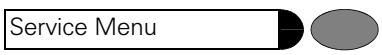
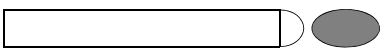
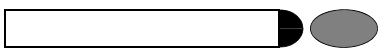
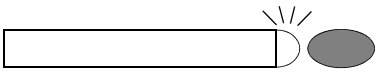
9 Miscellaneous

The following options are available:

- Feature Codes List
- Numbering Plan
- Remote Administration

9.1 Feature Codes List

The table below lists the features that can be programmed by codes (numerical sequence). The Feature Codes Lists in this table can be changed by the user as described in the **Current Setting** column of the "Feature Codes" Tab. By default, the following feature codes are activated at startup:

Symbols	Explanation
	Enter numbers, keys, password, internal or external numbers, etc.
	Signaling with a short beep
	Lift/Replace the handset
	Initiate conversation
	Service Menu
	Programmable key is ON
	Programmable key is OFF
	Blinking programmable key
	Navigation keys

Features can be selected as follows:

1.) Using the navigation keys in the Main Menu

2.) Using the Feature key then browsing the feature option list

3.) Using the Feature key and its associated Feature Code

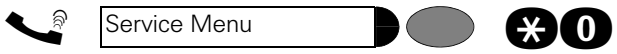
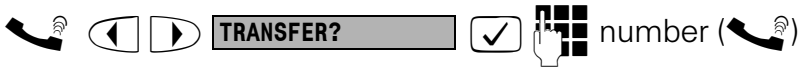
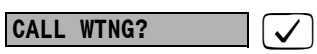
4.) Programmable Key.

Feature	**Code**
System telephone functions	
Mailbox access	Mailbox Key programmed for MWI
Call charge consultation	* mno 6 jkl 5
Call forwarding	Call forwarding
Call forwarding Deactivating	Call forwarding
Parking	Parking 0 a wxyz 9 position
Parking Resuming a Call	Parking 0 a wxyz 9 position
Caller List	# tuv 8 abc 2 list ◄ ► and ✓
Programming a feature for a key	* wxyz 9 1 Select a key ◄ ► feature to be programmed and ✓
Redial	Redial
Speaker	Activate/deactivate speakerphone Speaker Activate/deactivate speaker Speaker
Checking relay status	* wxyz 9 ghi 4 1 ghi 4

Feature	Code
Seizure of an external line	
External call	0
External call using a group of external lines	8 9 0 ... 8 9 9 external line
Seizure of an external line specify	8 0 1 ... 8 4 5 external line
Internet access Activating	* 4 9 3 external line
Internet access Deactivating	# 4 9 3 external line
External line reservation Busy	**1º)** Wait for The telephone rings. external line **or** **2)** Service Menu * 5 8 The telephone rings external
Functions used when making calls	
System Speed Dial	* 7 + 0 0 0 ... 2 4 9
Individual speed dialing	* 7 + * 0 ... * 4
Individual Speed Dialing Programming	* 9 2 + * 0 ... * 4 CHANGE? ✓ number SAVE? ✓ wait for
Handsfree answerback Activating	* 9 6 wait for
Handsfree answerback Deactivating	# 9 6 wait for

Feature	Code
Direct communication call	✱ 8 0 extension with system telephone wait for speak the message
Internal call	extension
Calling a Call Group (CG)	7 7 0 ... 7 7 9
Calling a Hunt Group (HG)	7 8 0 ... 7 8 9
UCD Subscriber group	7 9 0 ... 7 9 9
Urgent Call (busy extension)	**1)** (currently busy) Wait for **or** **2)** (currently busy) Service Menu ✱ 5 8
Hotline (if programmed)	
Warmline (if programmed)	Wait for
Override Busy extension	busy extension Service Menu ✱ 6 2
LCR Bypass	✱ 4 5 + Carrier + number
Show Time Account	# 6 5
Silent Monitoring (busy extension)	✱ 9 4 4 busy extension

Feature	Code
Callback Activating (Extension does not answer or is busy)	**1)** no answer CHANGE? or *5 8 Wait. The telephone rings **or** **2**) Wait for Wait. The telephone rings
Callback Deactivating	# 5 8
Carrier	9
Using a temporary MSN for making a call	* 4 1 MSN slot or MSN number external line external number
Functions used during calls	
Account Code	* 6 0 cost code # number
Conference	Consultation number Service Menu * 3
Consultation (To end a consultation wait for the call to be disconnected)	Consultation
Parking	Service Menu * 5 6 + 0 ... 9
Recovering a parked call	# 5 6 + 0 ... 9
Common Hold	Est. General
Recovering a parked call	* 6 3 + line

Feature	Code
Toggle (Use after Consultation for answering a second call or an urgent call)	
Suffix Dialing	data
Recovering a Call on hold	 if busy or no answer
Transfer (when an alternate analog line operates with "Polarity Reversal" or an external digital line is being used wait for the call to be answered for the Transfer. Otherwise, there is no need to wait for a transfer call without consultation to be answered)	**Internal:** extension **External:**  number ()
Functions used when receiving calls	
Mailbox Access	Voice Mail Group
Answering a call on hold	 or or 
Group pickup	 **or**
Individual pickup	extension

Feature	Code
Call forwarding on an analog line:	
Call forwarding to external number	*11 external line ✓
Internal call forwarding	*11 extension, Voice mail group, Call Group or Fax/DID ✓
Call forward Deactivating	#11
Call forward no answer or busy Activation	*14 extension, Voice mail group, Call Group or external line ✓
Call forward no answer Deactivation	#14
Do not disturb Activating	*97
Do not disturb Deactivating	#97
EVM:	
Consultation at the extension being used	790 VM group password
Consultation from a different extension	790 VM group password extension
Consultation from an external extension	its external number + * password extension
Miscellaneous functions	
Entrance telephone Door opener	Service menu *61 **or** Service menu *61 extension

Feature	Code
General alarm Deactivating	# 9wxyz 4ghi 1 4ghi password
Electronic lock change	* 9wxyz 3def current password new password confirm new password ♫
Electronic lock Activating	* 6mno 6mno password
Electronic lock Deactivating	# 6mno 6mno password
Busy signal when extension is busy Activating	* 9wxyz 4ghi 1 1 ☑
Busy signal when extension is busy Deactivating	# 9wxyz 4ghi 1 1
System programming mode Activating	* 9wxyz 5jkl password codes:
Deactivating a feature (Call forwarding, Do not disturb, Data protection, Alarm clock, Callback and Handsfree answerback)	# 0
Language/Country settings	* 9wxyz 4ghi 1 2abc country code:
Call Group (CG) and Hunt Group (HG) Login	* 8tuv 5jkl group (if the extension belongs to more than one group)
Call Group (CG) and Hunt Group (HG) Logout	# 8tuv 5jkl group (if the extension belongs to more than one group)
Room monitor (Babyphone)	* 8tuv 8tuv
Music on Hold Activating	* 9wxyz 4ghi 1 0 Music

Feature	Code
Music on Hold Deactivating	# 9 4 1 0
Remote Configuration HiPath 1100 Manager	* 9 9 2
Remote configuration using a standard MF telephone	**1)** local programming extension is talking to remote programmer: * 9 9 1 ♫ ▼ Remote programmer must provide: password programming codes **or** **2)** Remote programmer dials the system and is attended by the Fax/DID feature: * 9 5 password Programming codes
Data protection Activating	* 4 9 0
Data protection Deactivating	# 4 9 0
Relay Activating (For **HiPath 1120** only)	* 9 0
Relay Deactivating (For **HiPath 1120** only)	# 9 0
Night service Activating	* 4 4 password
Night service Deactivating	# 4 4 password
Call waiting tone - Activating	☎ # 8 7 ♫ ☎
Call Waiting tone - Deactivating	☎ * 8 7 ♫ ☎

Feature	Code
COS (Class of service) changeover	✱ 5 0 8 extension password
PABX Trace log Starts	✱ 1 7 7
PABX Trace log Stops	# 1 7 7
Extended PABX Trace log to enable	✱ 1 7 8
Extended PABX Trace log to disable	# 1 7 8
Alarm clock	
Alarm clock (Daily)	✱ 4 6 1 time (for example, 1230) ✓
Alarm clock (Daily, except weekends)	✱ 4 6 2 time (for example, 1230) ✓
Alarm clock (After a specified time)	✱ 4 6 3 time (e.g. 1230) ✓
Alarm clock (For a specified date and time)	✱ 4 6 4 date/time (for example, 24121830) ✓
Alarm clock Deactivating	# 4 6 ✓
UCD Subscriber group functions	
Agent available	✱ 4 0 2
Agent unavailable	# 4 0 2
UCD subscriber group	7 9 0 ... 7 9 9

Feature	Code
UCD group login	✱ 4 0 1 group (If it belongs to more than one)
UCD group logout	# 4 0 1
UCD Agent in Service	✱ 4 0 3
UCD Agent out of service	# 4 0 3
Show queue size to UCD agent	✱ 4 0 5
Satellite PABX	
Flash on external analog line	Service Menu ✱ 5 1
Operation as Satellite PABX	8 9 0 ... 8 9 9 number of the line
Special functions for ISDN Lines	
Immediate Call forwarding for MSN Activating	✱ 6 4 1 external line ♫ MSN
Immediate Call forwarding for MSN Deactivating	# 6 4 1 ♫
Forward MSN No Answer Activating	✱ 6 4 2 external line ♫ MSN
Forward MSN Answer Deactivating	# 6 4 2 ♫
Forward On Busy Activating	✱ 6 4 3 external line ♫ MSN
Call forwarding - Busy, for MSN Deactivating	# 6 4 3 ♫
Anonymous caller ID (Trace)	Service Menu ✱ 8 4

Feature	Code
Sending restriction for MSN - Activation	*86
Sending restriction for MSN - Deactivation	#86
Using features provided by a carrier on ISDN Lines	*503 external ISDN code

Note:

- For Korea the numbering plan suffers the following changes:
  a) Access to the group of external lines is done with digit "9" instead of "0";
  b) Calling an operator terminal is done with digit "0" instead of "9";
  c) Group call pickup is done with sequence "*0" instead of "*57";
  d) Recovery of a parked call is done with sequence "*57" instead of "*0";
- Feature Codes can be changed in the HiPath 1100 Manager. An expert should be consulted in this case.

9.2 Numbering Plan

The following table shows default number allocation in the HiPath 1100 system.

Description	HiPath 1120	HiPath 1150	HiPath 1190
External Line	801 to 808	801 to 832	801 to 845
Extension, including S_0	11 to 30	11 to 60 610 to 645	101 to 240
Group of external lines	0, 890 to 899		
CG Call Group	770 to 779		
HG Call Group	780 to 789		
UCD Subscriber Group	790 to 799		
Carrier	9		
EVM - Default internal number	790		
EVM - Message Ports	7491 and 7492		
EVM - Virtual Ports	744 to 747		
Fax/DID - Virtual Message Ports	740 to 743		
USB/CAPI line	10		100
Substitution for the key * and #	75 and 76 (accordingly)		

9.3 Remote Administration

Remote Administration allows a technician to configure a HiPath 1100 PABX from a remote PC (Service Center) using the HiPath 1100 Manager connected to the system over digital or analog lines or by means of an analog modem.

There are two types of remote administration:

- Remote Administration by User's Request to a Service Center (Server Mode);
- Remote Administration Initiated by the Service Center.

9.3.1 Remote Administration by User's Request to a Service Center (Server Mode)

With this type of Remote Administration the HiPath 1100 system can be configured by a Support Technician when requested by the user.

Requirements

- The HiPath 1100 Manager must be locally connected to the HiPath 1100
- Open the Basic -> MSN -> Configurations folder and configure the local MSN. that is, the PABX's MSN.
- Open the Advanced -> System Settings -> Remote Administration folder.
- In the "Local MSN Configuration for Remote Administration" field the user must choose a local MSN for the remote ISDN connection. The Support Technician will use this MSN for an ISDN connection. This field can be disabled if the connection is made through an analog modem.
- In the Remote Operation Type dialog box, select the type of connection that will be used for the server (ISDN or analog modem). If Analog Modem is selected, enter in the Extension field the number for the PABX's analog extension that is connected to the external analog modem.
- The Service Center must provide the MSN or analog number to be used by a technician for accessing the HiPath 1100 Manager in Server Mode.
- No settings were specified in the HiPath 1100 Manager "Remote Administration" tab (default settings are valid). The Remote Administration field does not affect the connection to the server, thus it can remain disabled.
- The PABX PC must have HiPath 1100 Manager deactivated.
- To allow the user to update the PABX software remotely using the Software Update tool, the External Number field in the Advanced -> System Settings -> Software Update folder must be configured as follows:
  - Connection via ISDN: Destination MSN.
  - Connection Using an Analog Modem: 0 + analog destination number.

Remote Administration Activation

Activation of the Remote Administration feature is done using a programming extension (extension 11 or first extension with a system telephone).

Connect to the HiPath 1100 Manager or Software Update as follows:

- Connecting to the HiPath 1100 Manager:
  - Via ISDN: enter *994 + the destination MSN
  - Via analog modem: enter *994 + access code for an external line (e.g., 0) + authorized external number + #.

- Connecting to the Software Update:
  - Enter *9415.

If a connection to the HiPath 1100 Manager is established, the user will hear a confirmation tone (if this is a system telephone, Start will appear on the display). Otherwise, the user will hear a rejection tone (if this is a system telephone, Invalid Entry will appear on the display (for example, in the event that the Service Center is busy or performing another Remote Administration).

The HiPath 1100 Manager communication server (CommServer) (server mode) in the Service Center accepts the connection request and sets up a data connection with the HiPath 1100 system that has made the request. As soon as a connection is established, the Service Center is prompted for a password. If the correct password is entered, Remote Administration will be enabled, otherwise the call will be disconnected.

Once the connection to the Software Update is established, the Service Center will send the most updated version of the software, by comparing it to the PABX software version. If the compared versions are different, the update will proceed automatically, otherwise the PABX software will not be updated.

9.3.2 Remote Administration Initiated by the Service Center.

There are two types of Remote Administration that can be initiated directly by the Service Center:

After Authorization by the Client

Requirements

Before the Service Center can establish a remote connection, the user's PABX must be configured. To do this follow these steps:

- The HiPath 1100 Manager must be locally connected to the HiPath 1100.
- The local MSN to be used for the remote connection must be specified in the Basic -> MSN -> Configurations folder (for connection via ISDN).
- Open the Advanced -> System Settings -> Remote Administration folder and select the Remote Administration option.
- In the External Numbers Authorized dialog box the "Do not check numbers" field allows you to select a two-level security check for the remote connection. For an ISDN connection, when this option is disabled the MSN or the analog number and the associated password are verified. When this option is enabled, only the Support Technician's password is verified.

For an analog modem connection, this option can be disabled since it does not affect the connection.
Note: In both cases, a password must be configured.

- In the "Local MSN Configuration for Remote Administration" field the user must choose a local MSN for the remote ISDN connection. The Support Technician will use this MSN for an ISDN connection. This field can be disabled if the connection is made through an analog modem.
- In the Remote Operation Type dialog box, select the ISDN or Analog Modem option. If Analog Modem is selected, enter in the Extension field the number for the PABX's analog extension that is connected to the external analog modem.
- The PC connected to the HiPath 1100 system is turned off.

Remote Administration Activation

A Remote Administration connection is established through the HiPath 1100 Manager CommServer at the Service Center, running on a remote PC. A data communication connection via ISDN or analog modem is established to the HiPath 1100 system's remote MSN (see CommServer tab).

Your HiPath 1100 system receives and verifies the connection request then checks to see if Remote Administration should be allowed, depending on the option selected in the Do Not Check Numbers dialog box. This is accomplished as follows:

- Enabled
  - If an invalid password is entered in the Service Center's HiPath 1100 Manager, a rejection packet is transferred to Remote Administration and the connection is terminated.
  - If the correct password is entered, a data link is established and Remote Administration enabled.
- disabled

If one or more external MSNs have been configured in the Remote Administration field on the user's HiPath 1100 Manager, the following applies:

- If the Service Center number provided (Remote MSN) matches a number stored in the External Number field, the connection request is accepted.
- If the Service Center number provided (Remote MSN) does not match a number stored in the External Number field, the connection is terminated.

If the connection request is accepted and a data link is established, the Service Center is prompted to enter a password, which is then sent to the user's PABX. The password received by the HiPath 1100 is compared to the password assigned to the specified External Number (Remote MSN).

- If the password is not valid, the Service Center will receive a rejection signal and the connection will be terminated.
- If the password is valid, a data link will be established and the Remote Administration feature enabled.

Remote Administration cannot be enabled unless all settings have been configured in the PABX's HiPath 1100 using HiPath 1100 Manager in the the "Remote Administration" Tab. It also cannot be enabled if the hardware is not structured according to specifications (see Service Manual).
When the Enable Remote Administration *checkbox* is disabled, all attempts made by the Service Center to dial the Remote MSN HiPath 1100 for the system to be managed by Remote Administration will be rejected. When this occurs, the Service Center may request the user to select this box, which can be done by entering the feature code *992 (extension 11 or first extension with a system telephone).

Abbreviations

This list includes the abbreviations used in this documentation.

Abbreviation	Definition
ACS	Automatic Carrier Selection
ADSL	Asymmetric Digital Subscriber Line
CAPI	Common ISDN Application Programming Interface
CbC	Call by Call (anticipated prefix)
CDR	Call Detail Recording (call charge information)
CLIP	Calling Line Identification Presentation (Caller ID)
CLIR	Calling Line Identification Restriction (SS). Caller ID blocking on called party's display.
COLP	Connected Line Identification Presentation (display of accessed number)
COLR	Connected Line Identification Restriction (SS). Caller ID blocking on called party's display.
DID	Direct Inward Dialing. This allows forwarding an incoming call from the public telephone network to specific client's extensions, without attendant assistance.
DISA	Direct Inward System Access. This allows a party to call the HiPath 1100 from an external (off-system) location and, using a dual-tone multifrequency (DTMF) keypad, to access system features and capabilities.
DSS1	European Digital Subscriber Signaling No. 1
DTMF	Dual-Tone Multifrequency. A method for sending numerical information using Specific pairs of voice frequencies to represent the digits 0-9, * and #.
EC	European Community
EVM	Entry Voice Mail (Voice Mail)
FSK	Frequency Shift Keying (Modulation)
FW	Firmware

Abbreviation	Definition
HDLC	High-Level Data Link Control (bit-based control procedure for data transmission)
ISDN	Integrated Services Digital Network
LCR	Least Cost Routing. A system feature that automatically selects the most cost effective route available for an outgoing call.
MOH	Music On Hold
MSN	Multiple Subscriber Number
PABX	Private Automatic Branch Exchange
S_0	ISDN Extension Interface (64 KBit)
SF	Swiss Francs
SW	Software
TFE	Entrance Telephone
VCAPI	Virtual Common ISDN Application Program Interface (Common Virtual Application Programming Interface ISDN)
XDSL	(General) Digital Subscriber Line

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